Most - Often - Needed

1926-1938 RADIO DIAGRAMS

and Servicing Information

Compiled by

M. N. BEITMAN

SUPREME PUBLICATIONS
CHICAGO

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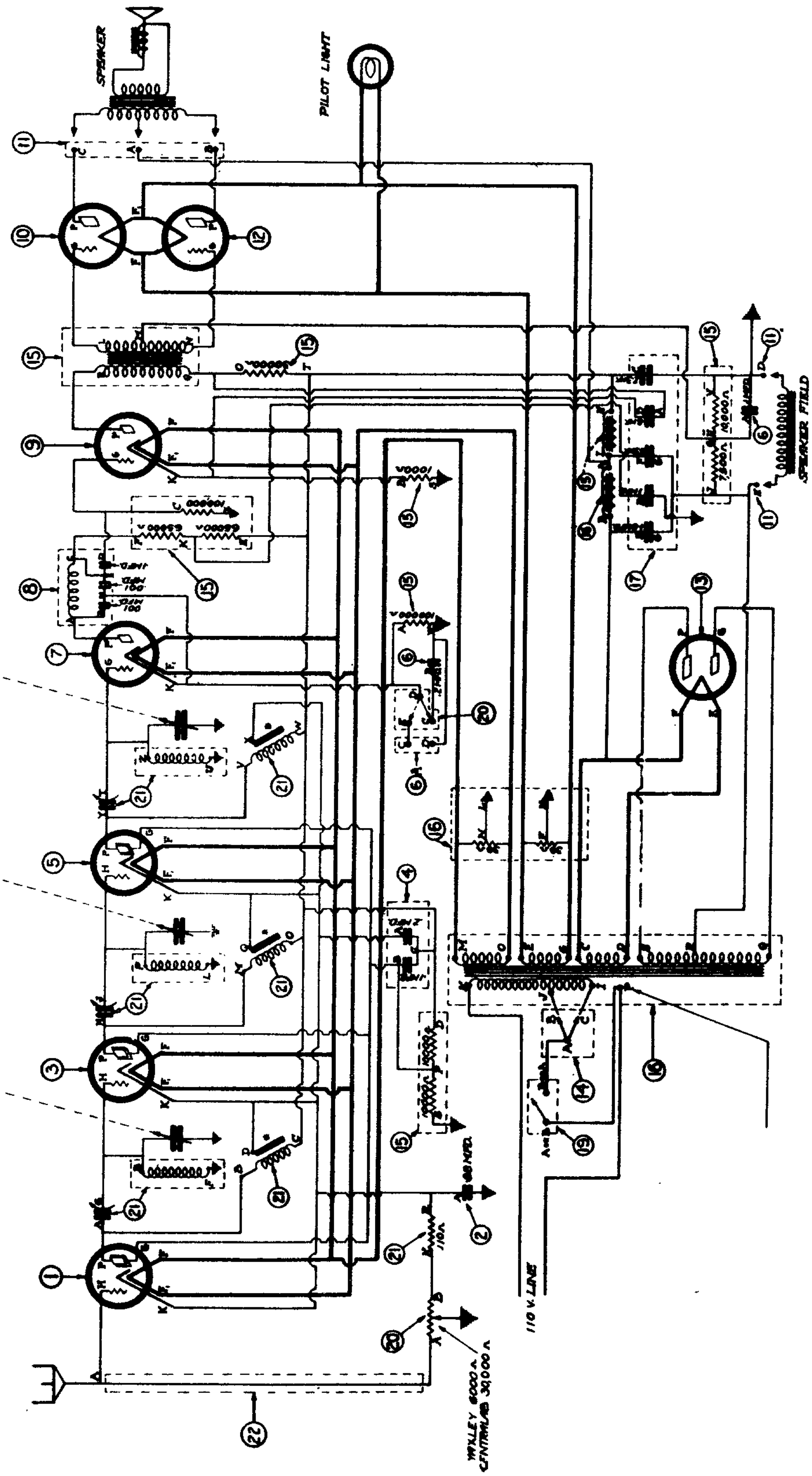
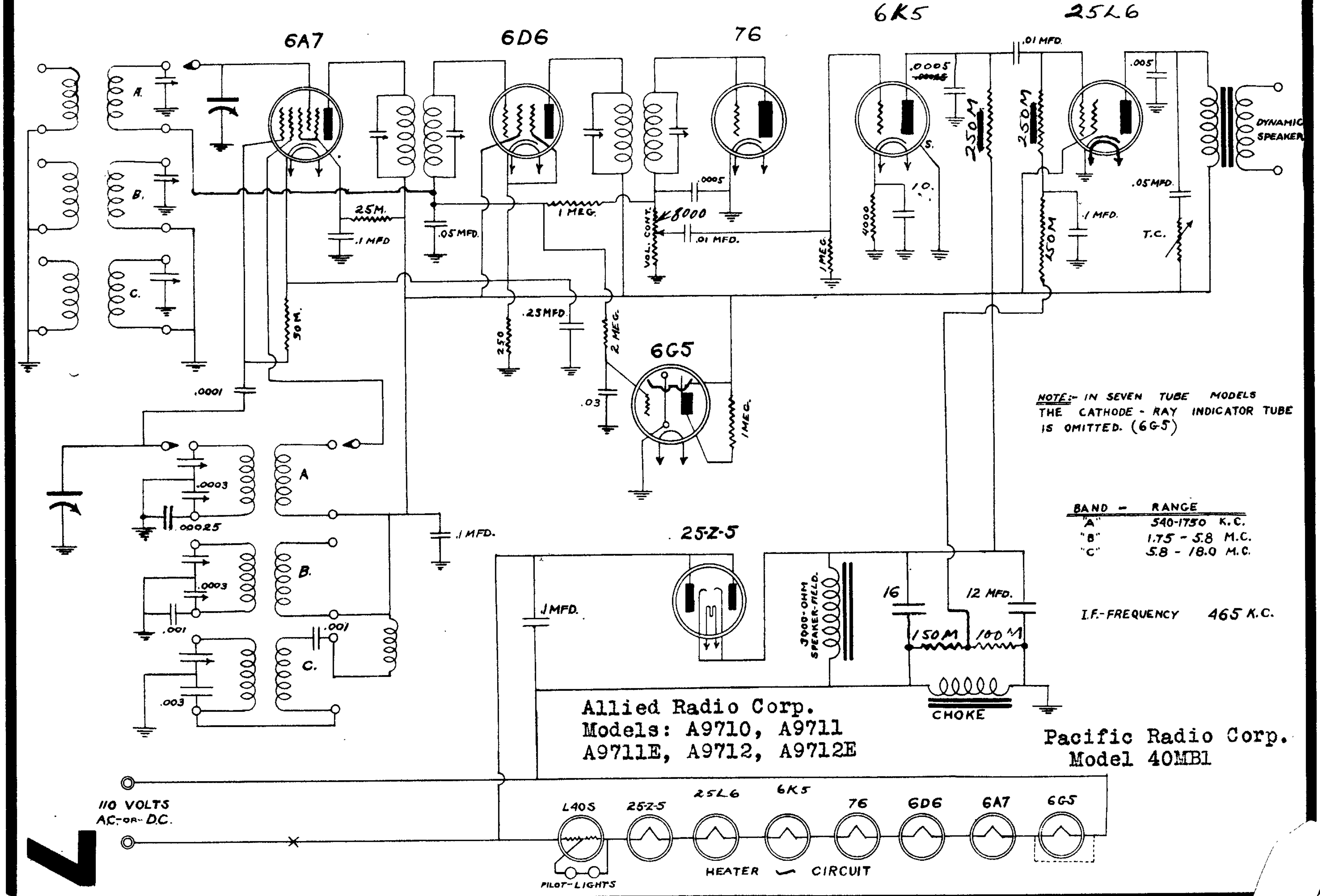


Allied Radio Corp.
Columbia SG-8



NOTE:- IN SEVEN TUBE MODELS THE CATHODE - RAY INDICATOR TUBE IS OMITTED. (6G5)

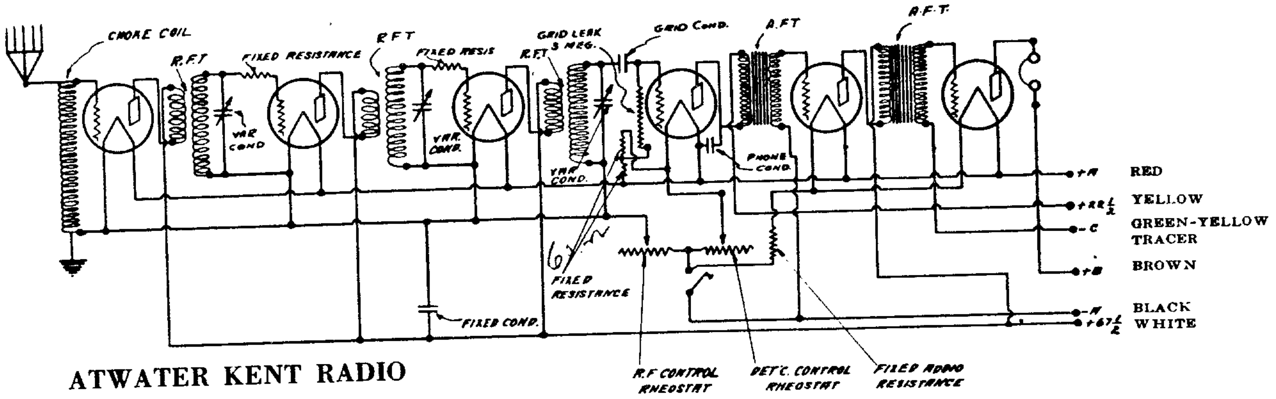
BAND -	RANGE
"A"	540-1750 K.C.
"B"	1.75 - 5.8 M.C.
"C"	5.8 - 18.0 M.C.

I.F.-FREQUENCY 465 K.C.

Allied Radio Corp.
Models: A9710, A9711
A9711E, A9712, A9712E

Pacific Radio Corp.
Model 40MB1

MODEL 30, 32, 35 AND 48



ATWATER KENT RADIO

Wiring Diagram of Model 30, 35 and 48.

In Model 35, one rheostat controls the three R. F. filaments and a fixed resistor is connected in series with the detector and two A. F. filaments

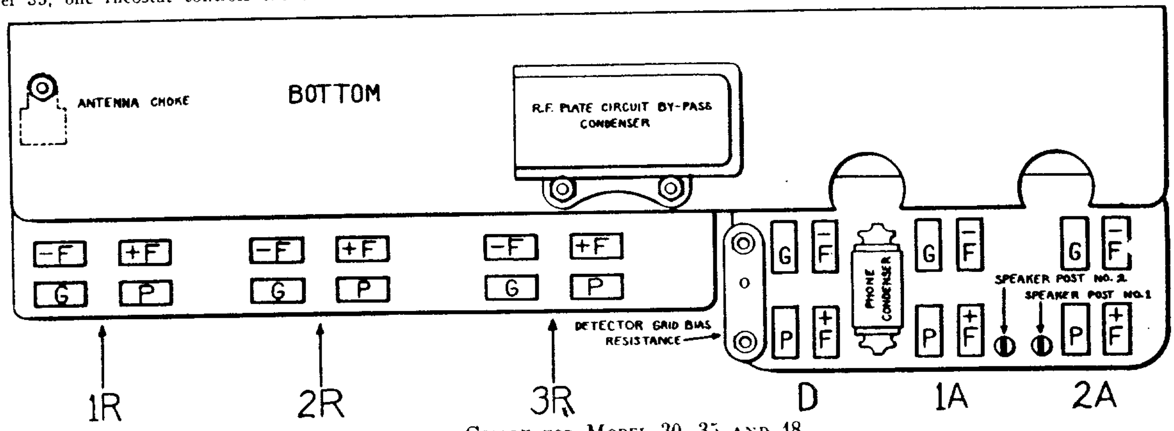
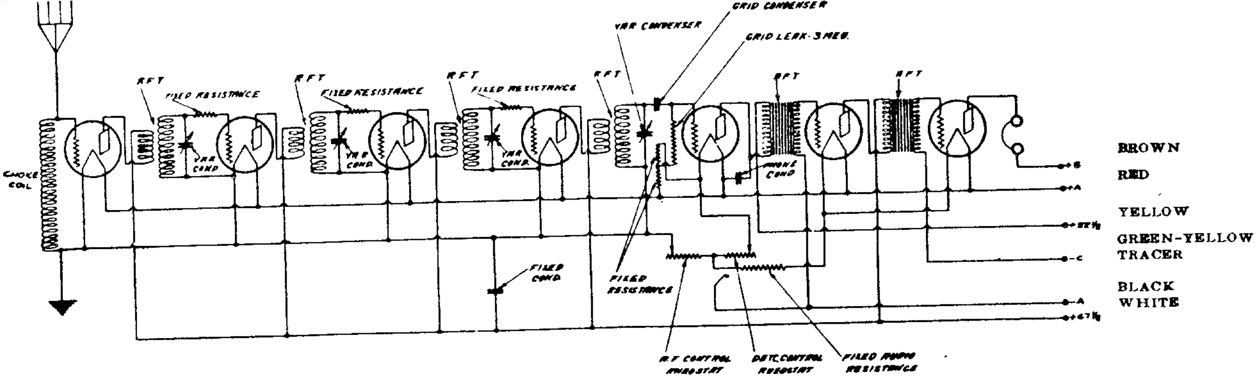


Chart for Model 30, 35 and 48.

Early Model 30 Sets have separate R. F. sockets, but the socket contacts are in same relative position as shown in above chart.



Wiring Diagram of Model 32.

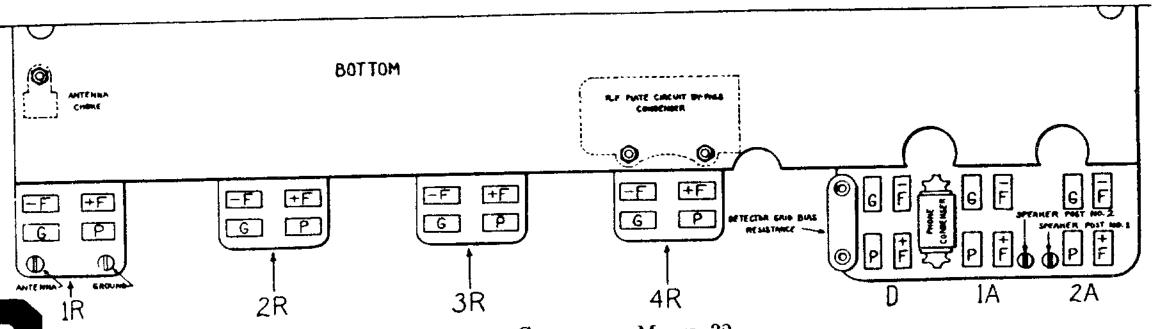
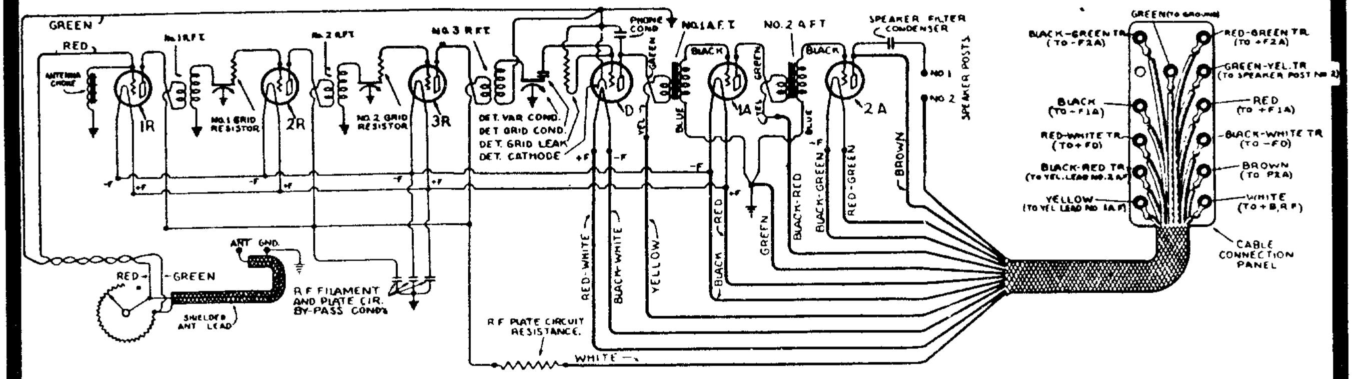


Chart for Model 32.

ATWATER KENT RADIO

MODEL 37, 37-F. 37-C CHASSIS



Wiring Diagram of Model 37, 37-F, 37-C.

A 2nd-A. F. filament-shunt resistor is used before Serial No. 1,385,000, in which case speaker post No. 2 connects to the centre-tap of this resistor, and the green-yellow tracer lead is not used. The R. F. plate circuit resistor is used after Serial No. 1,385,000.

In Model 37-C the on-off switch is connected to the two terminals on either side of the ground eyelet. A 2nd A. F. filament shunt resistor is used in the chassis of all Model 37-C receivers.

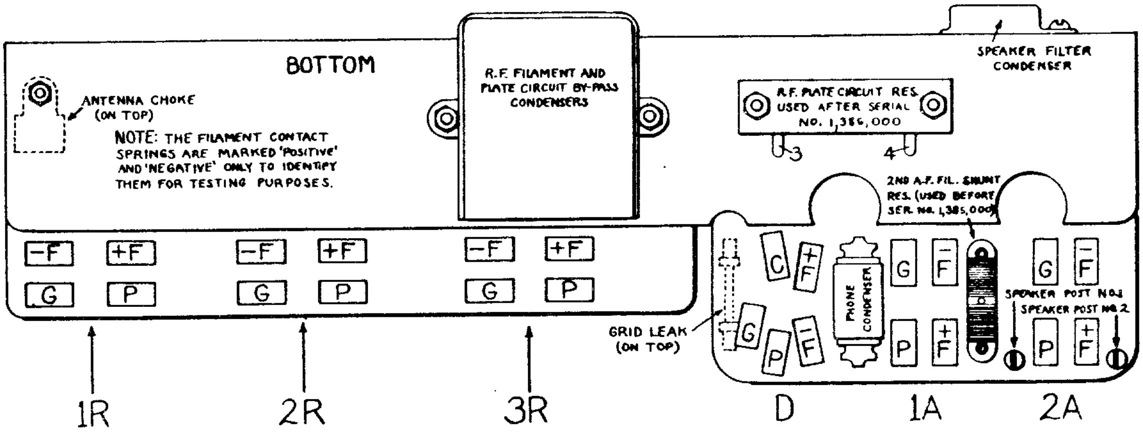
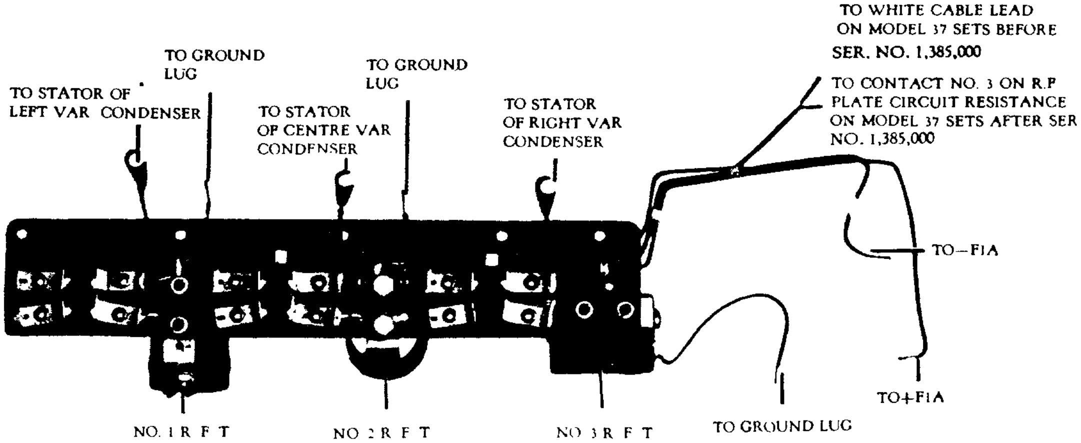

BOTTOM
ANTENNA CHOKE (ON TOP)
NOTE: THE FILAMENT CONTACT SPRINGS ARE MARKED 'POSITIVE' AND 'NEGATIVE' ONLY TO IDENTIFY THEM FOR TESTING PURPOSES.
R.F. FILAMENT AND PLATE CIRCUIT BY-PASS CONDENSERS
R.F. PLATE CIRCUIT RES. USED AFTER SERIAL NO. 1,386,000
3
4
SPEAKER FILTER CONDENSER
2ND A.F. FIL. SHUNT RES. (USED BEFORE SER. NO. 1,385,000)
-F
+F
G
P
C
PHONE CONDENSER
GRID LEAK (ON TOP)
SPEAKER POST NO. 1
SPEAKER POST NO. 2
1R
2R
3R
D
1A
2A

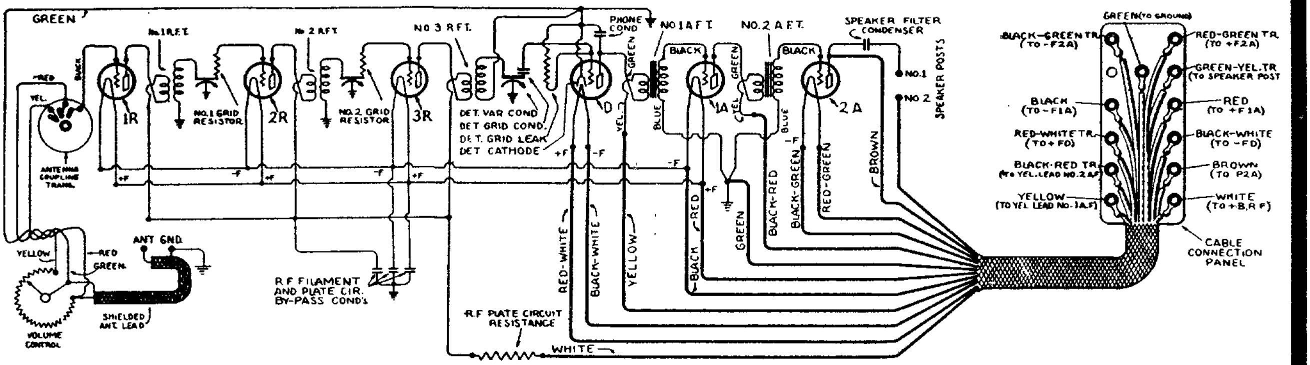
Chart for Model 37, 37-F, 37-C.


TO STATOR OF LEFT VAR CONDENSER
TO GROUND LUG
TO STATOR OF CENTRE VAR CONDENSER
TO GROUND LUG
TO STATOR OF RIGHT VAR CONDENSER
TO WHITE CABLE LEAD ON MODEL 37 SETS BEFORE SER. NO. 1,385,000
TO CONTACT NO. 3 ON R.F. PLATE CIRCUIT RESISTANCE ON MODEL 37 SETS AFTER SER NO. 1,385,000
TO -F1A
TO +F1A
TO GROUND LUG
NO. 1 R F T
NO 2 R F T
NO 3 R F T

View of R. F. Amplifier.

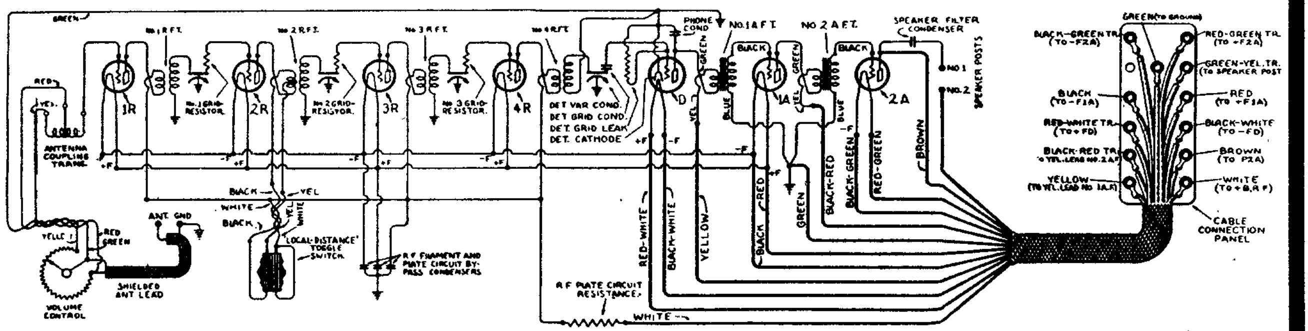
ATWATER KENT RADIO

MODEL 40, 40-F, 42, 42-F, 44, 44-F, 45, 52, 56 AND 57 CHASSIS

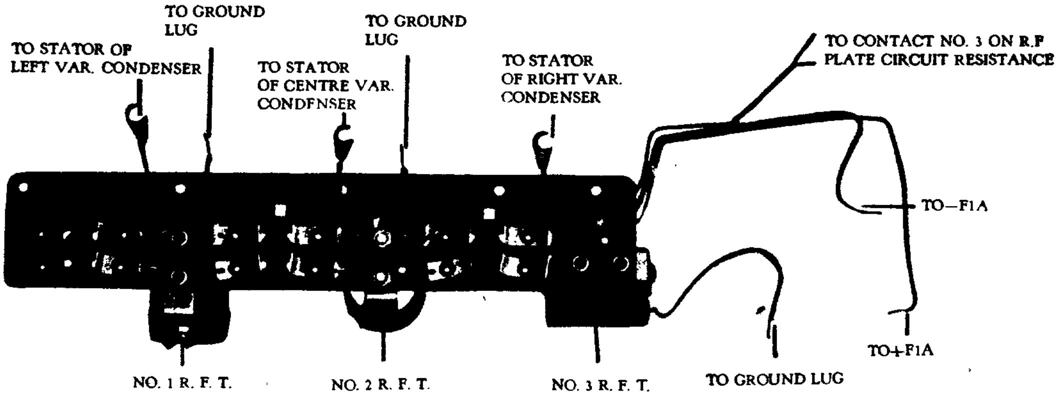


Wiring Diagram of Model 40, 40-F, 42, 42-F, 52, 56 and 57.

Model 52 does not have the shielded antenna lead, but is provided with two twenty-foot leads which are connected to the volume control, black antenna and black-green tracer for ground. Model 56 and 57 have antenna and ground posts at the bottom of the cabinet.



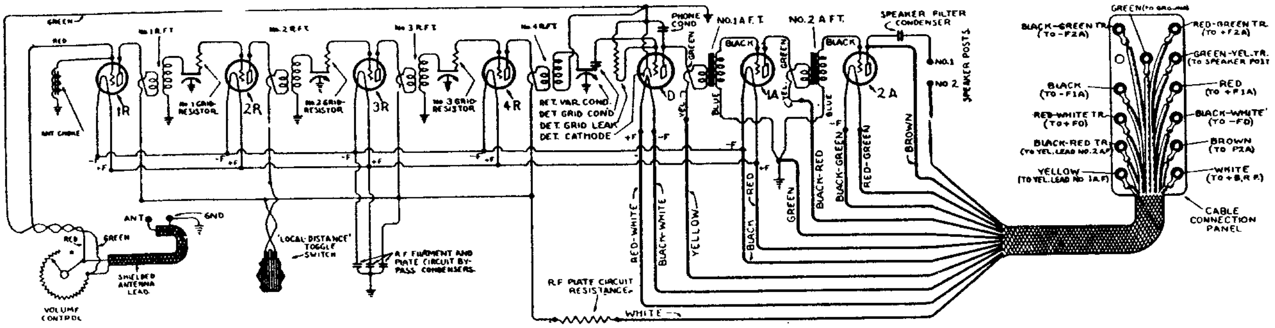
Wiring Diagram of Model 44, 44-F and 45.


TO GROUND LUG
TO STATOR OF LEFT VAR. CONDENSER
TO STATOR OF CENTRE VAR. CONDENSER
TO GROUND LUG
TO STATOR OF RIGHT VAR. CONDENSER
TO CONTACT NO. 3 ON R.F PLATE CIRCUIT RESISTANCE
TO—F1A
TO+F1A
NO. 1 R. F. T.
NO. 2 R. F. T.
NO. 3 R. F. T.
TO GROUND LUG

View of R. F. Amplifier Assembly in Model 40, 40-F, 42, 42-F, 52, 56 and 57.

ATWATER KENT RADIO

MODEL 38 CHASSIS



Wiring Diagram of Model 38.

A 2nd-A. F. filament-shunt resistor is used before Serial No. 1,752,000 and the green-yellow tracer cable lead is not used.

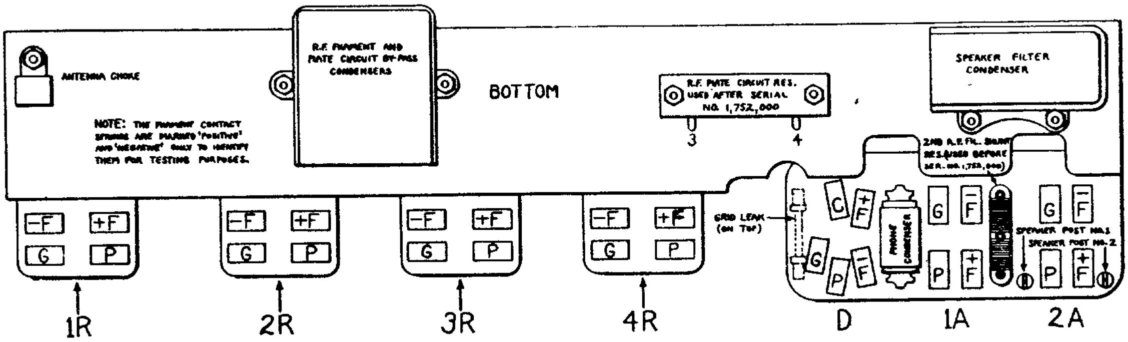
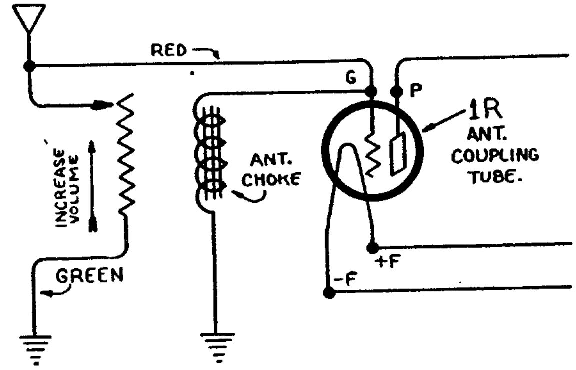
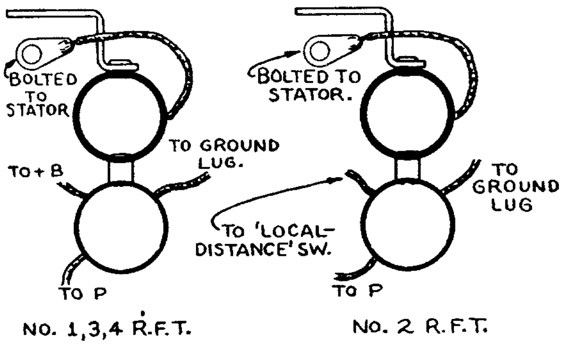

ANTENNA CHOKE
NOTE: THE FILAMENT CONTACT SPRINGS ARE MARKED 'POSITIVE' AND 'NEGATIVE' ONLY TO IDENTIFY THEM FOR TESTING PURPOSES.
R.F. FILAMENT AND PLATE CIRCUIT BY-PASS CONDENSERS
BOTTOM
R.F. PLATE CIRCUIT RES. USED AFTER SERIAL NO. 1,752,000
3
4
SPEAKER FILTER CONDENSER
2ND A.F. FIL. SHUNT RES. USED BEFORE SER. NO. 1,752,000)
GRID LEAK (ON TOP)
PHONE CONDENSER
SPEAKER POST NO. 1
SPEAKER POST NO. 2
-F
+F
G
P
C
1R
2R
3R
4R
D
1A
2A

Chart for Model 38.



Schematic Diagram of Volume Control in Model 37, 37-F, 37-C and 38.



Sketch Showing Connections From R. F. Transformers, Model 38.

ATWATER KENT RADIO

MODEL 43, 46, 47 AND 53

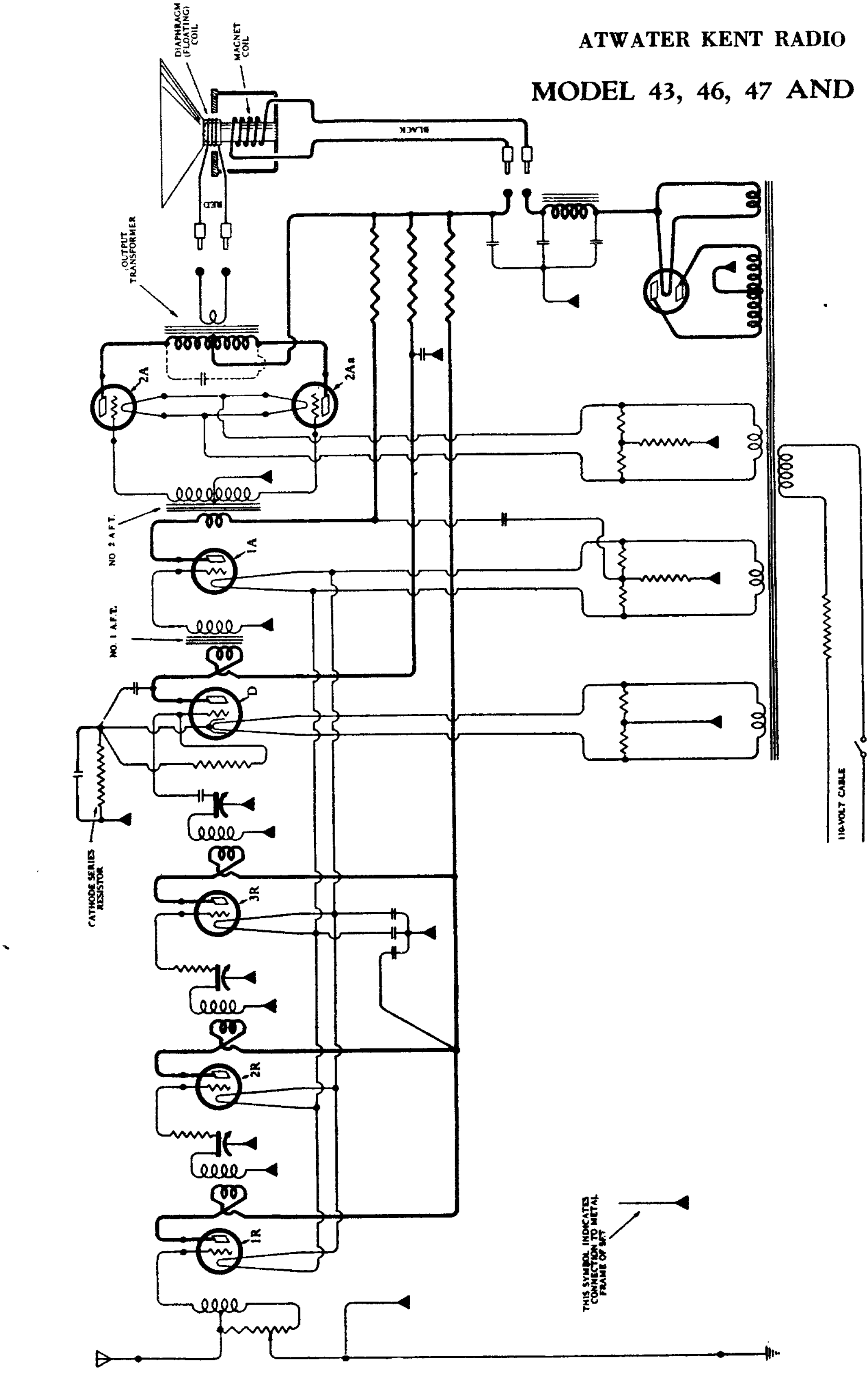
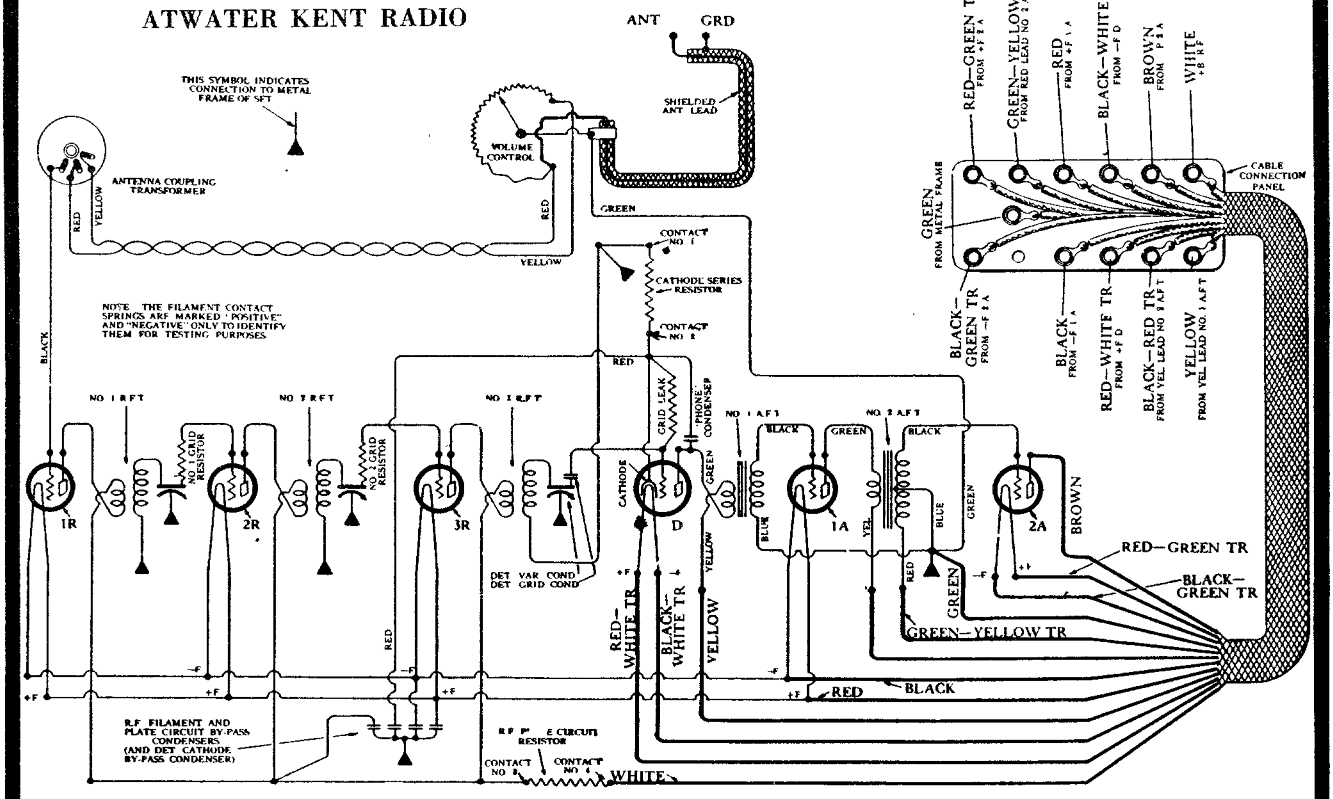


DIAGRAM OF MODEL 43, 46 AND 53. (The output transformer is sealed in the power unit.)

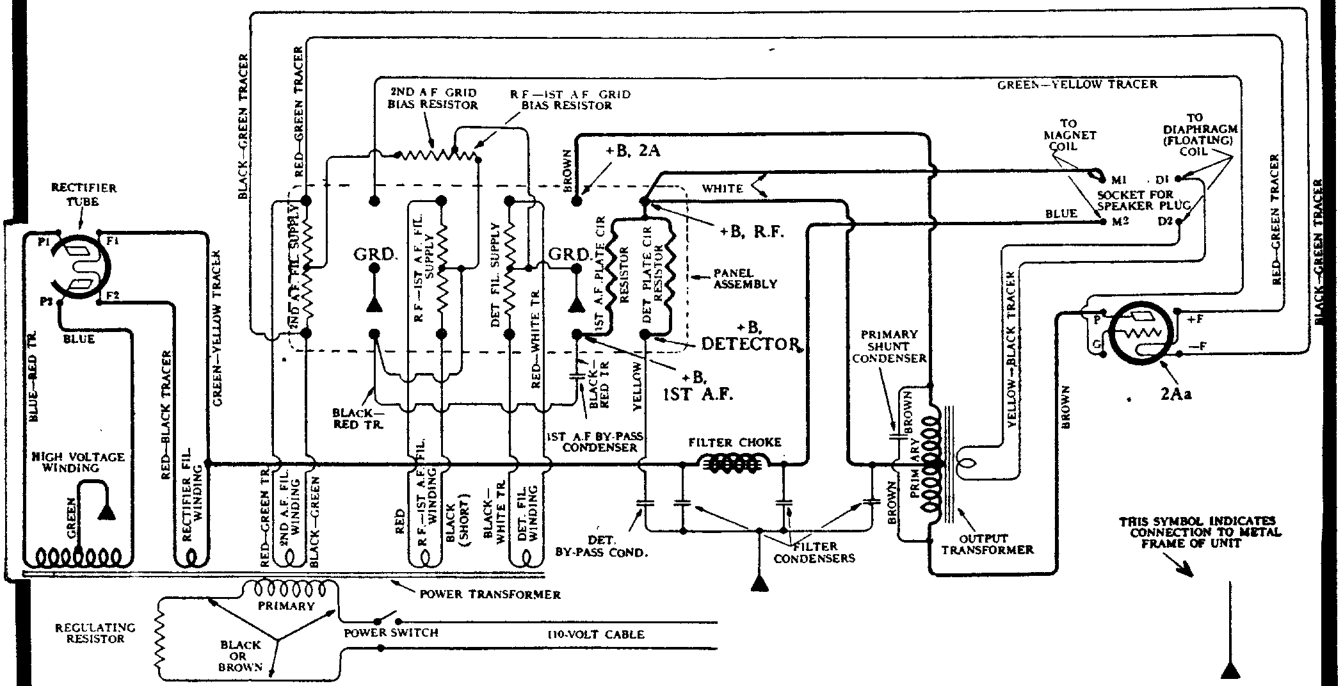
Model 47 is similar to this but has one extra stage of R. F. amplification and a local-distance switch similar to that in Model 44.

MODEL 43, 46, 47 AND 53 DIAGRAM

ATWATER KENT RADIO

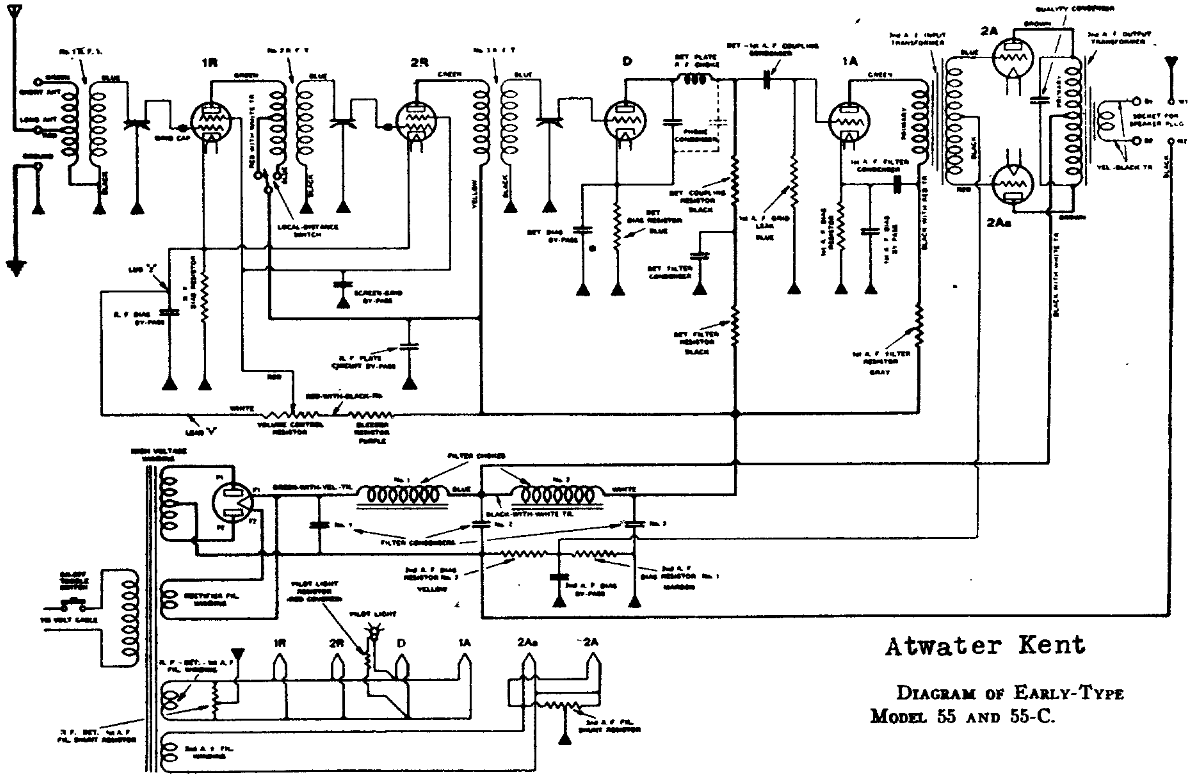


Wiring Diagram of Model 43, 46 and 53.
The +B, 1st A. F. cable lead is black with a red tracer.
Model 47 is similar but has one additional stage of R. F. amplification and a local-distance switch like that on Model 44.



Wiring Diagram of Power Unit in Model 43.

MODEL 55 AND 55-C



Atwater Kent

Diagram of Early-Type Model 55 and 55-C.

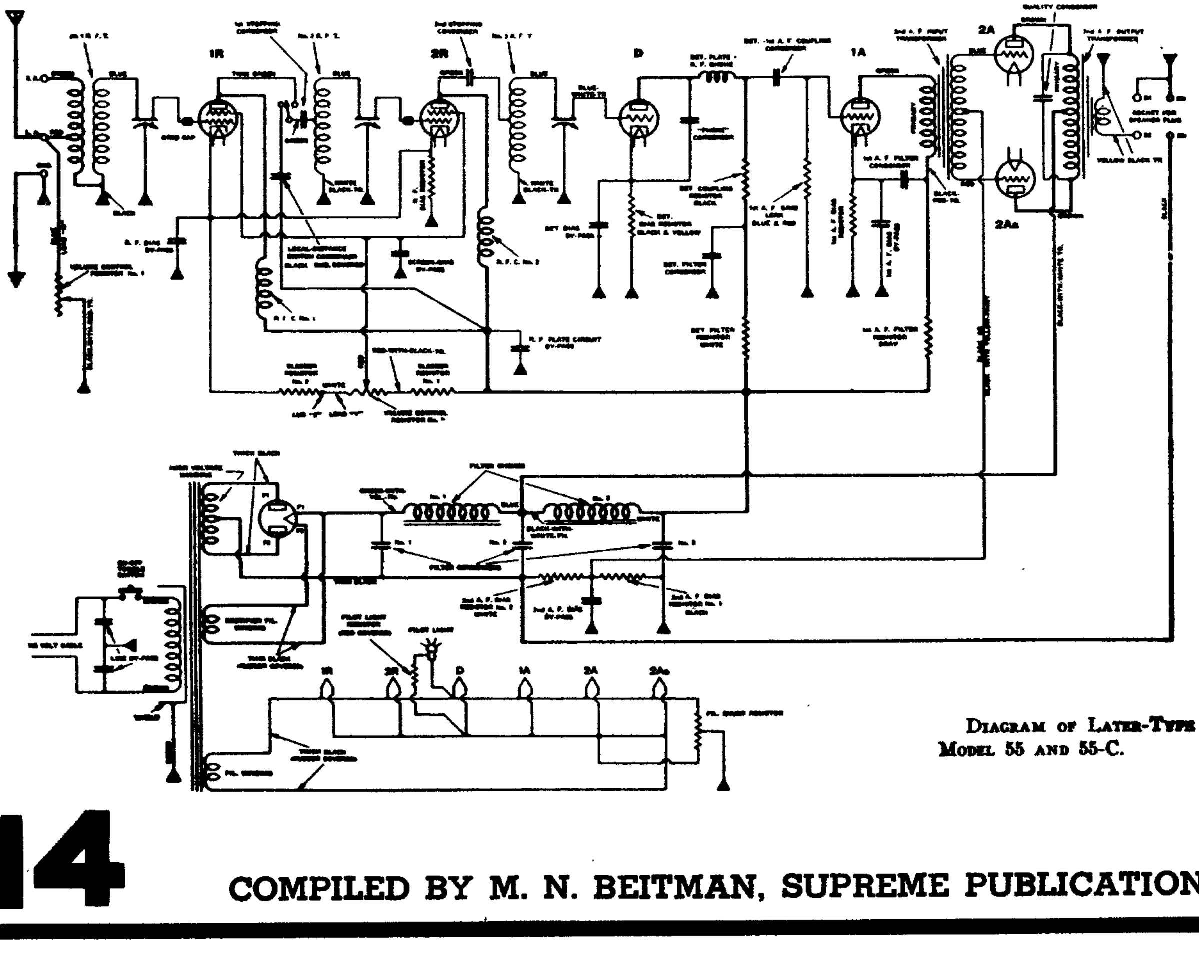
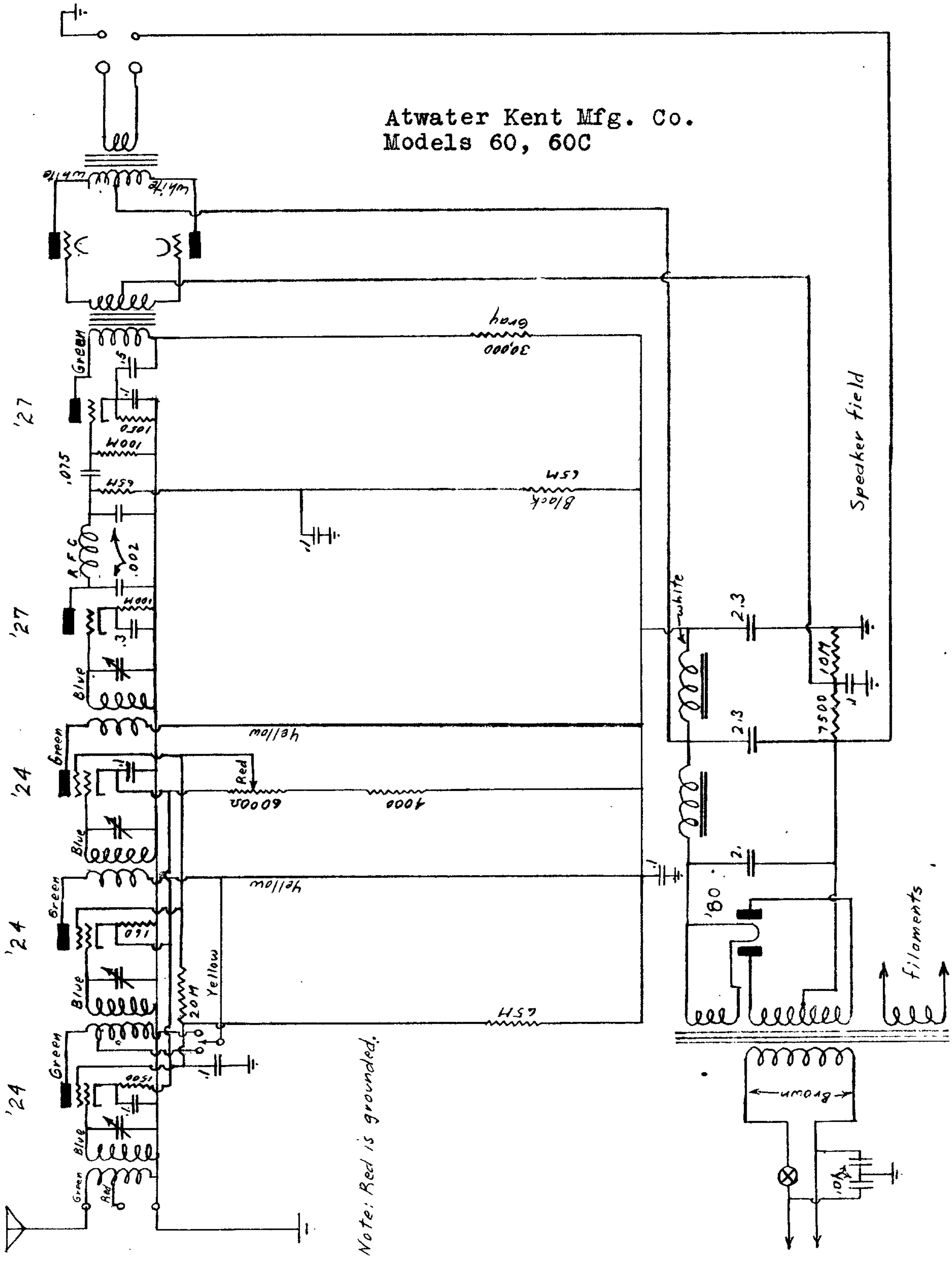


Diagram of Later-Type Model 55 and 55-C.

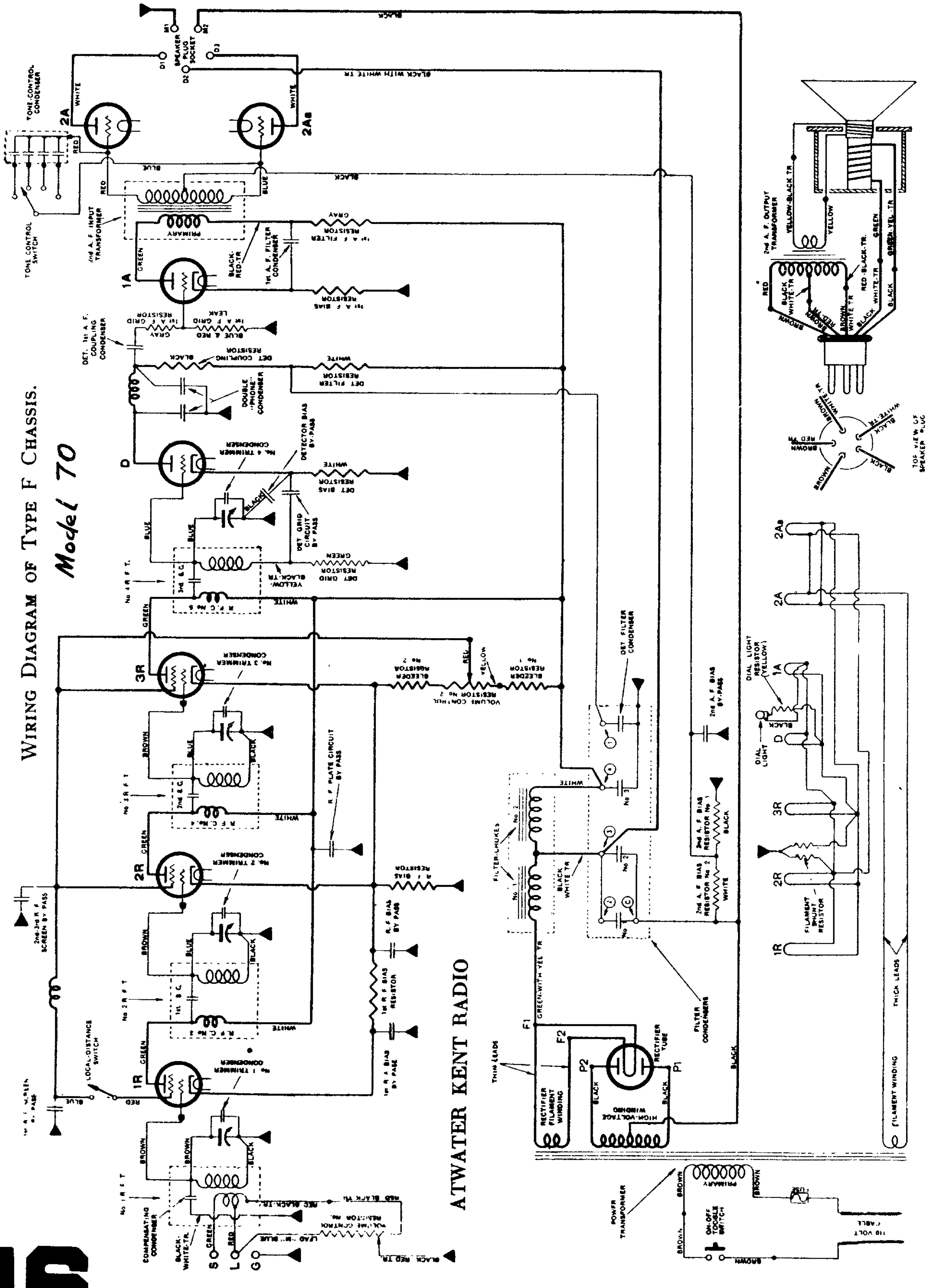
Atwater Kent Mfg. Co.
Models 60, 60C



ATWATER KENT RADIO

WIRING DIAGRAM OF TYPE F CHASSIS.

Model 70



ATWATER KENT RADIO

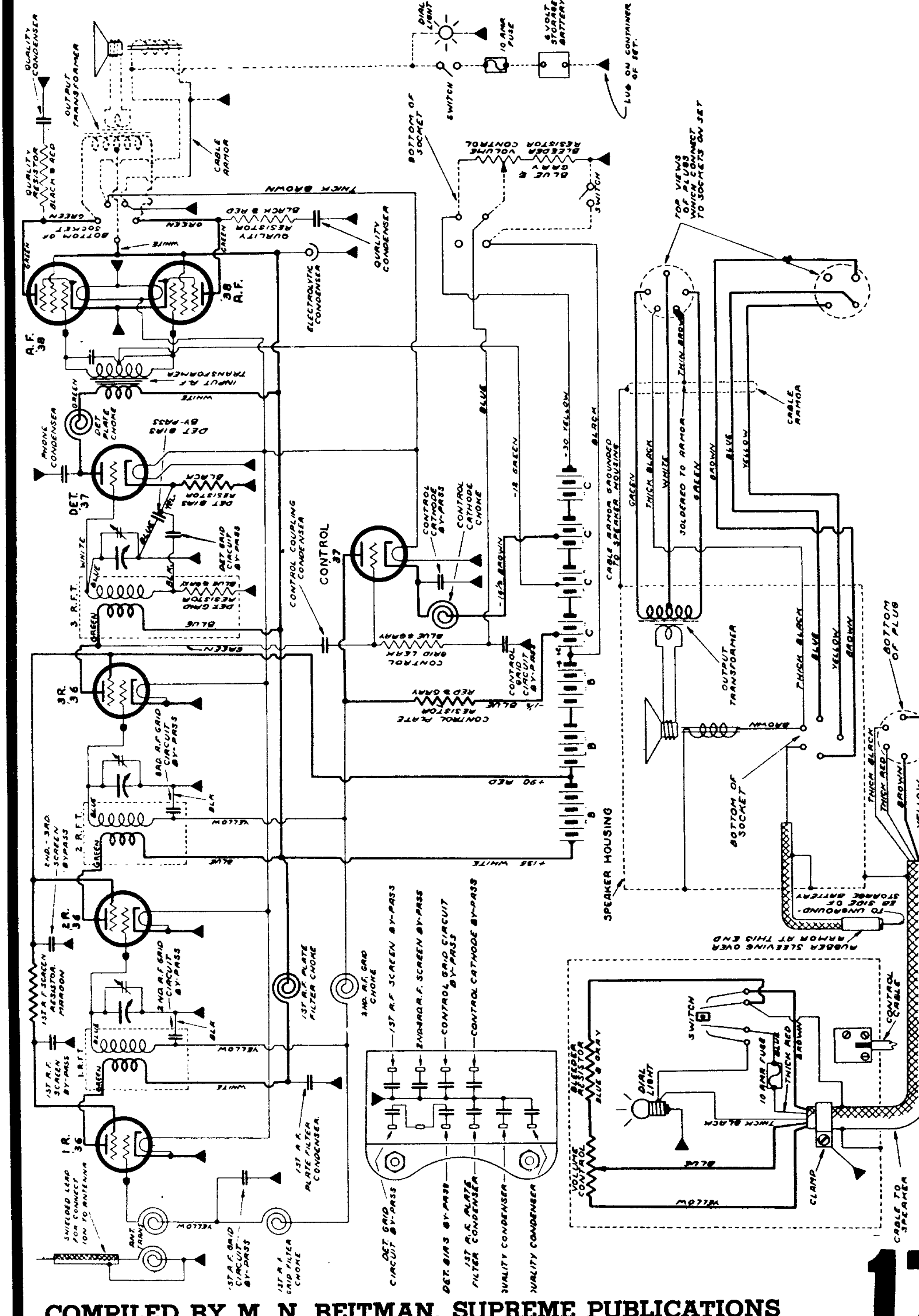
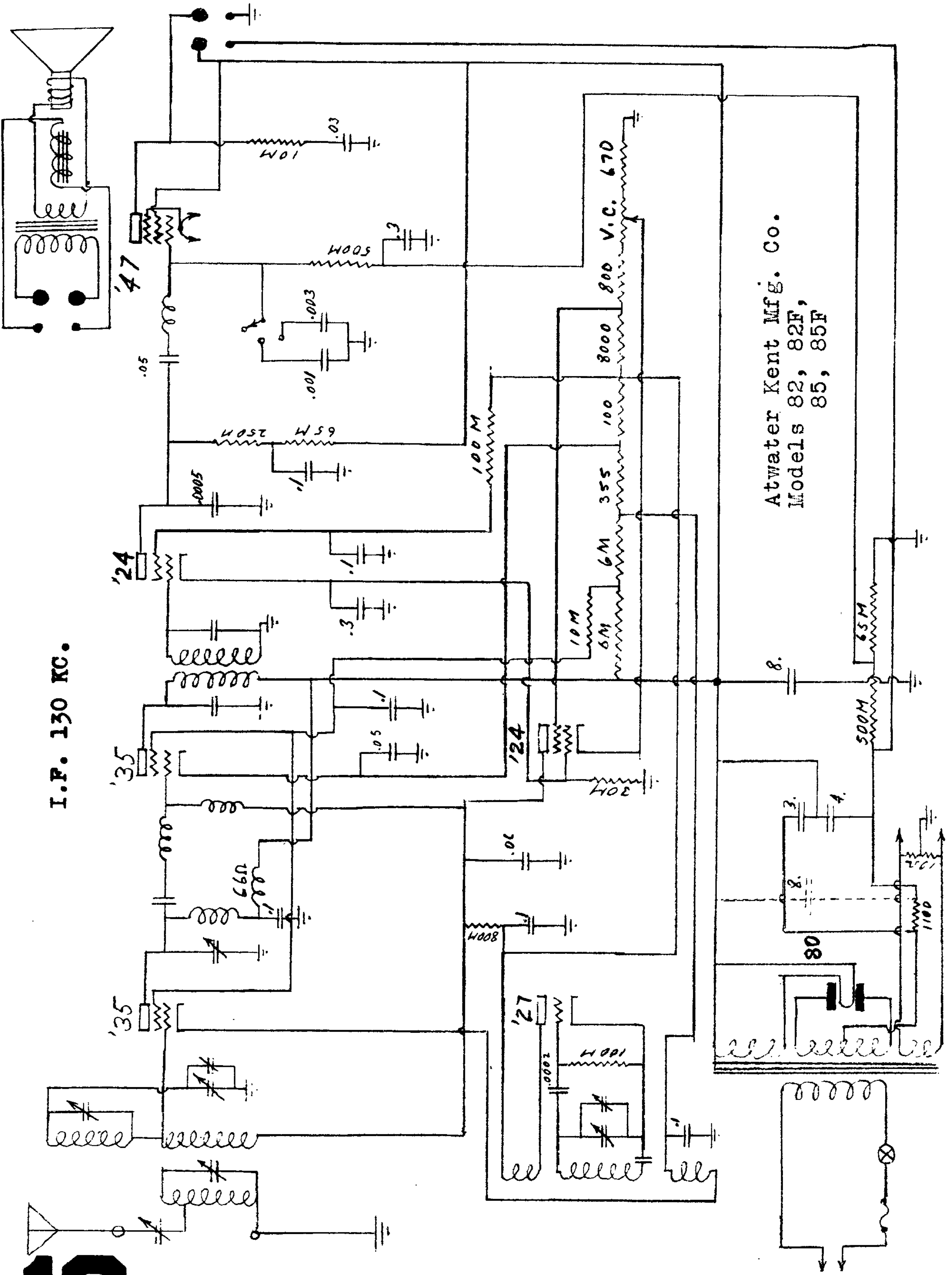


Diagram of Model 81 Motor Car Radio (Battery-Operated).



Atwater Kent Mfg. Co.
Models 82, 82F,
85, 85F

I.F. 130 KC.

ATWATER KENT RADIO

MODEL 84, 84-F (Early Type)

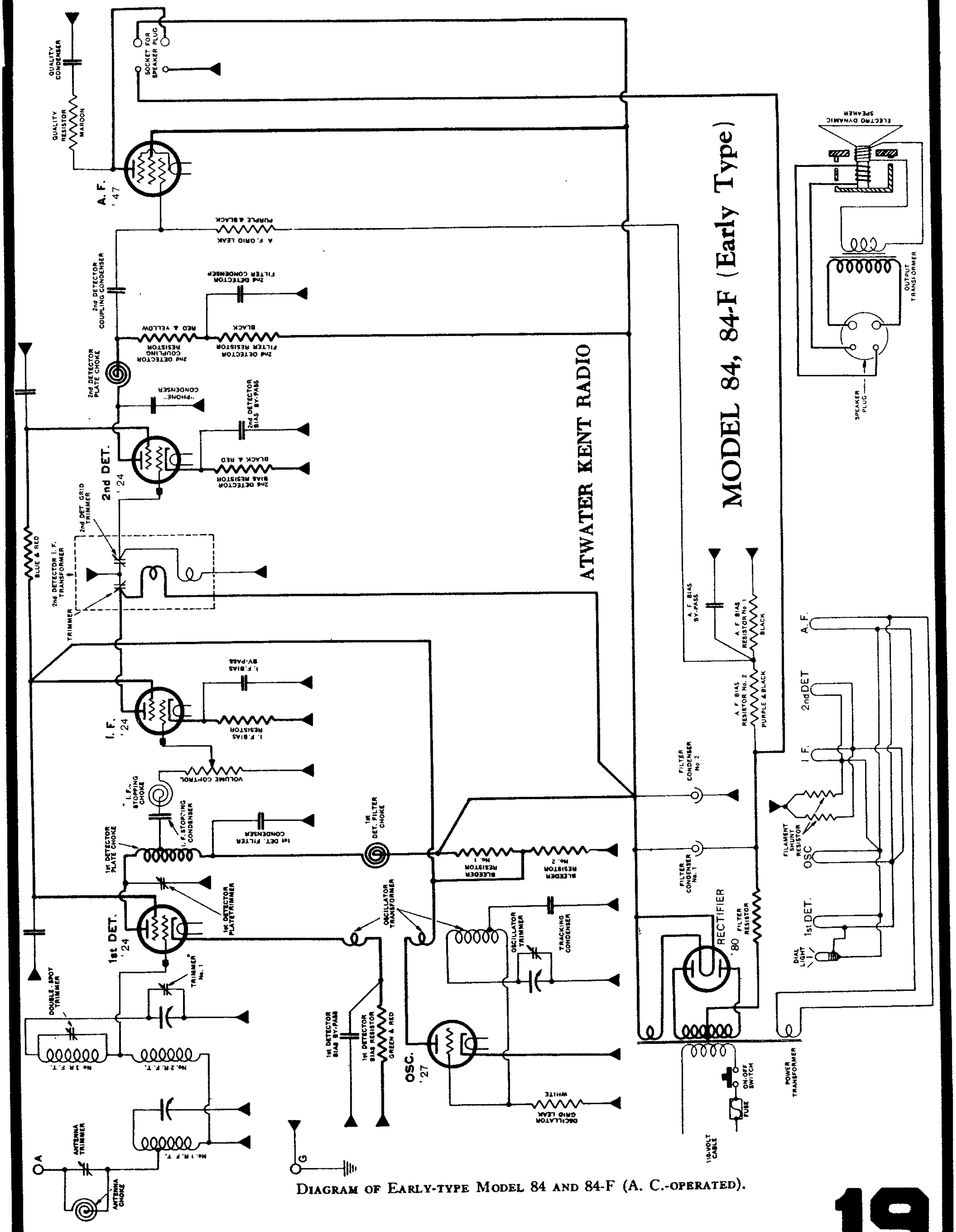


DIAGRAM OF EARLY-TYPE MODEL 84 AND 84-F (A. C.-OPERATED).

ATWATER KENT RADIO

MODEL 84, 84-F (Late Type)

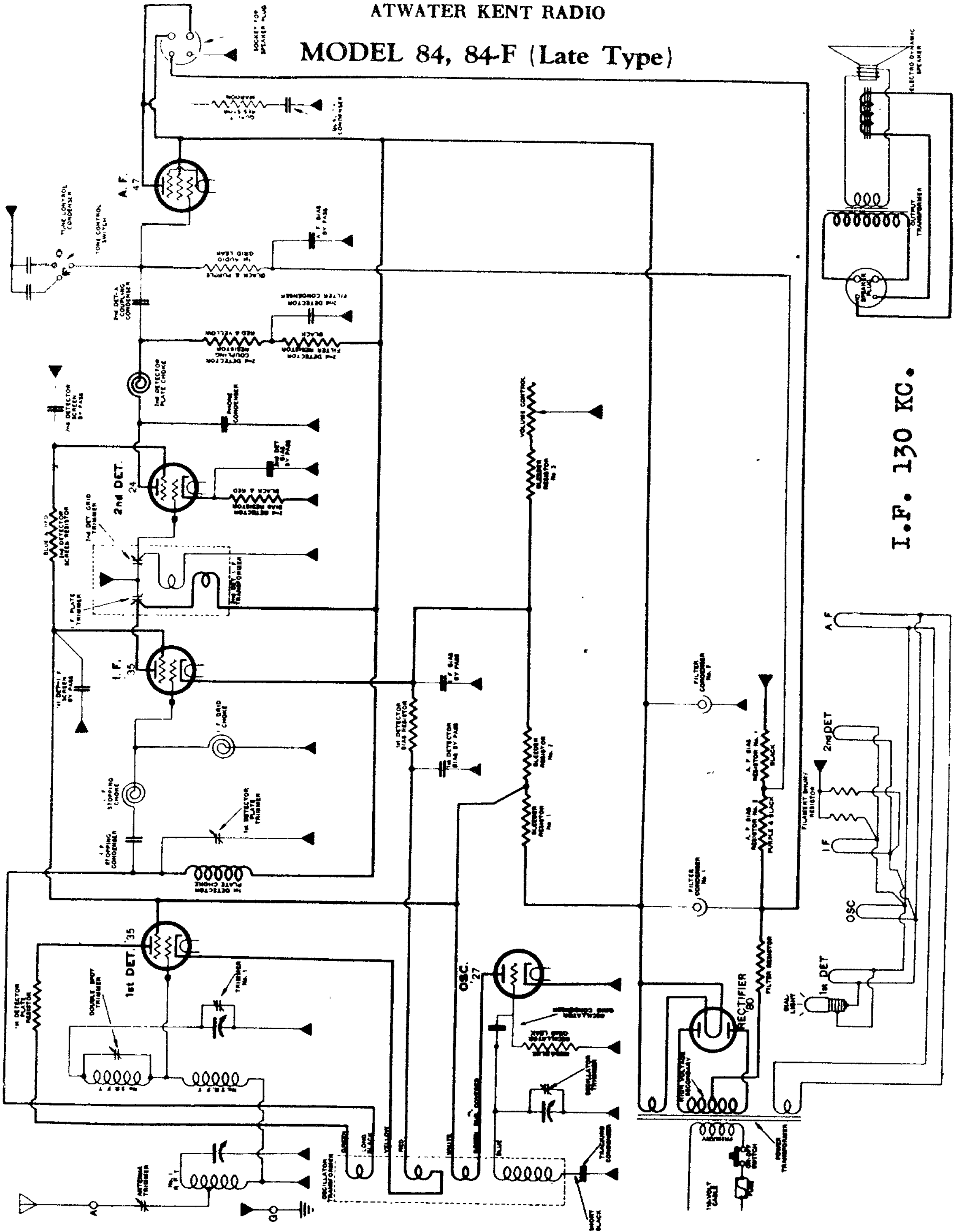
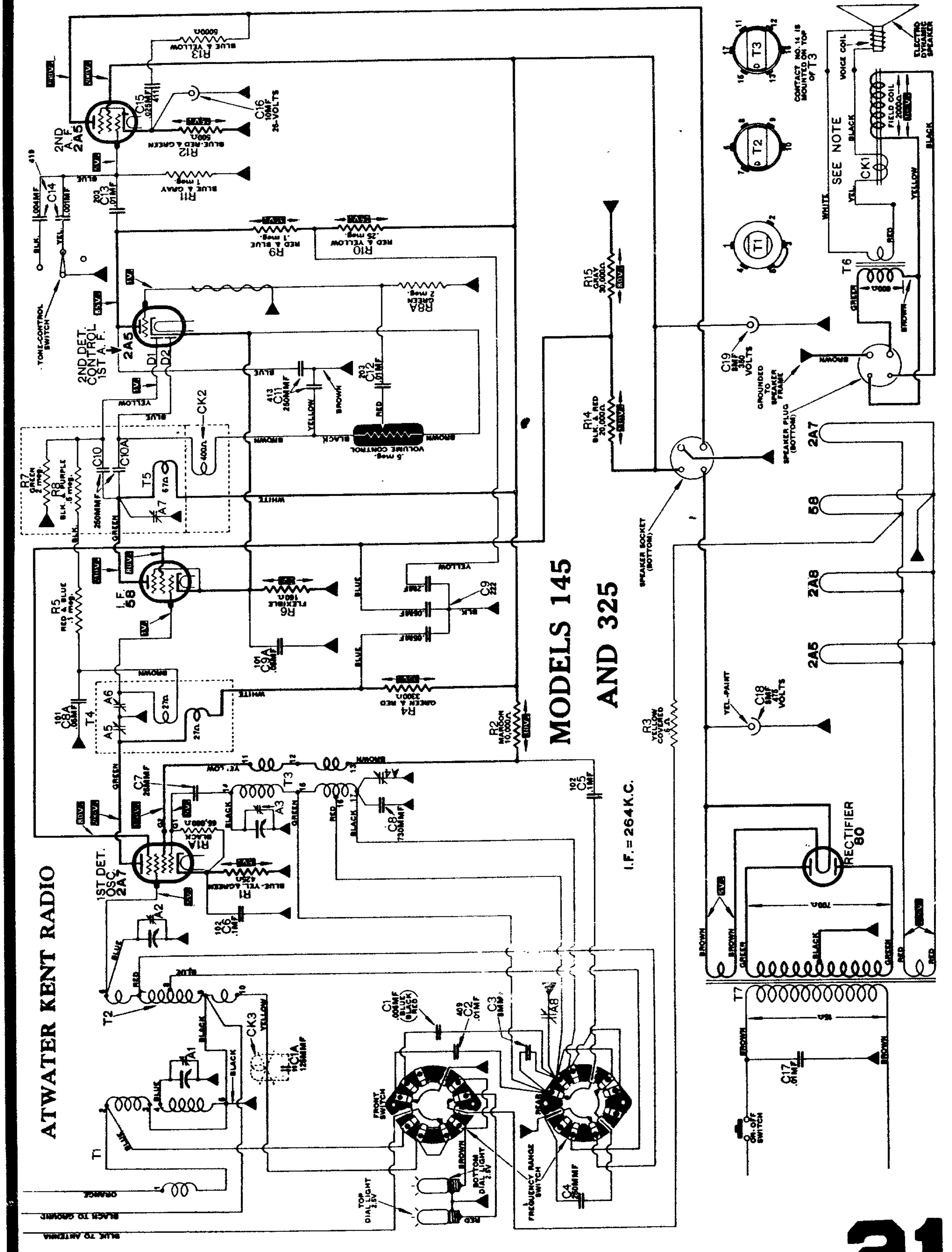


Diagram of Late-type Model 84 and 84-F (A. C.-operated).
A few late-type Model 84 and 84-F receivers have slightly different oscillator transformers, as explained in the notes accompanying the parts list for these sets.
The filter resistor shown in the above diagram is NOT used in Model 84-F.
This set has a 1st-detector plate filter choke and condenser not shown in the diagram.

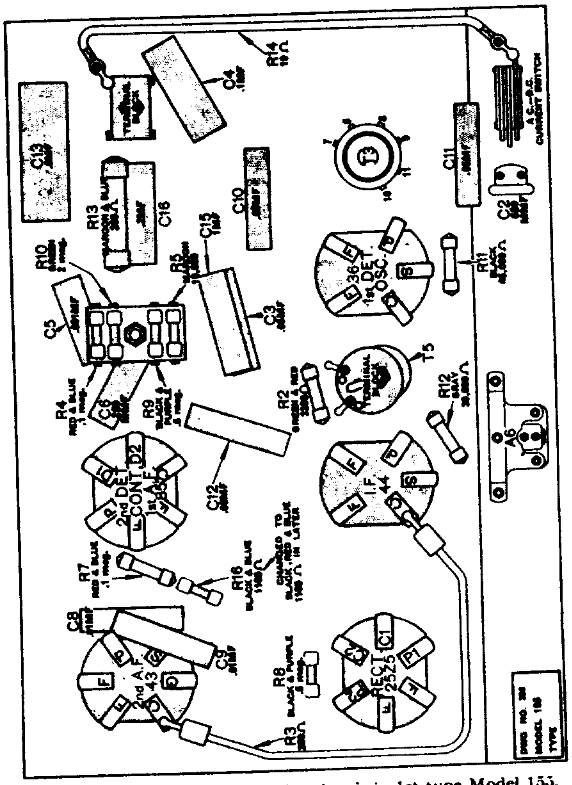
ATWATER KENT RADIO

MODELS 145 AND 325

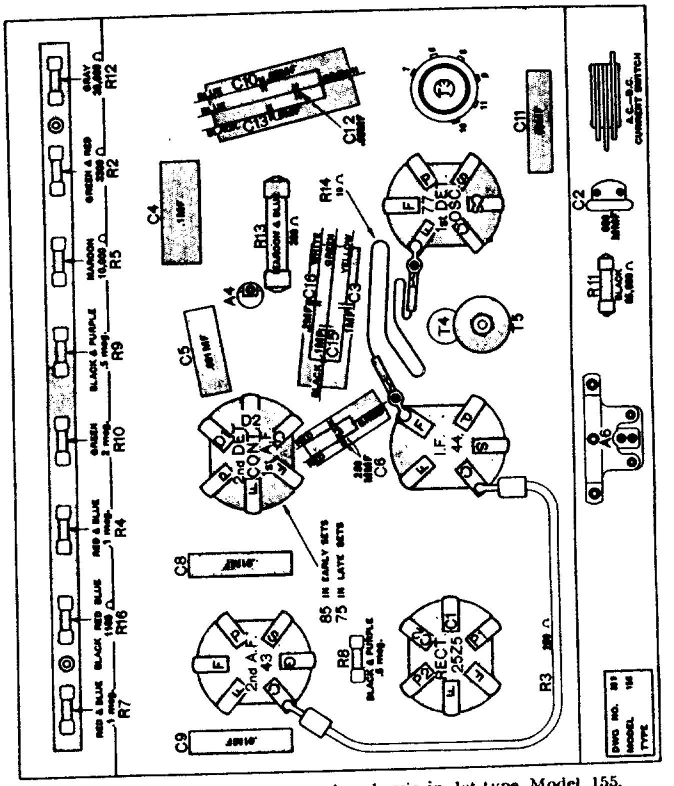


ATWATER KENT RADIO

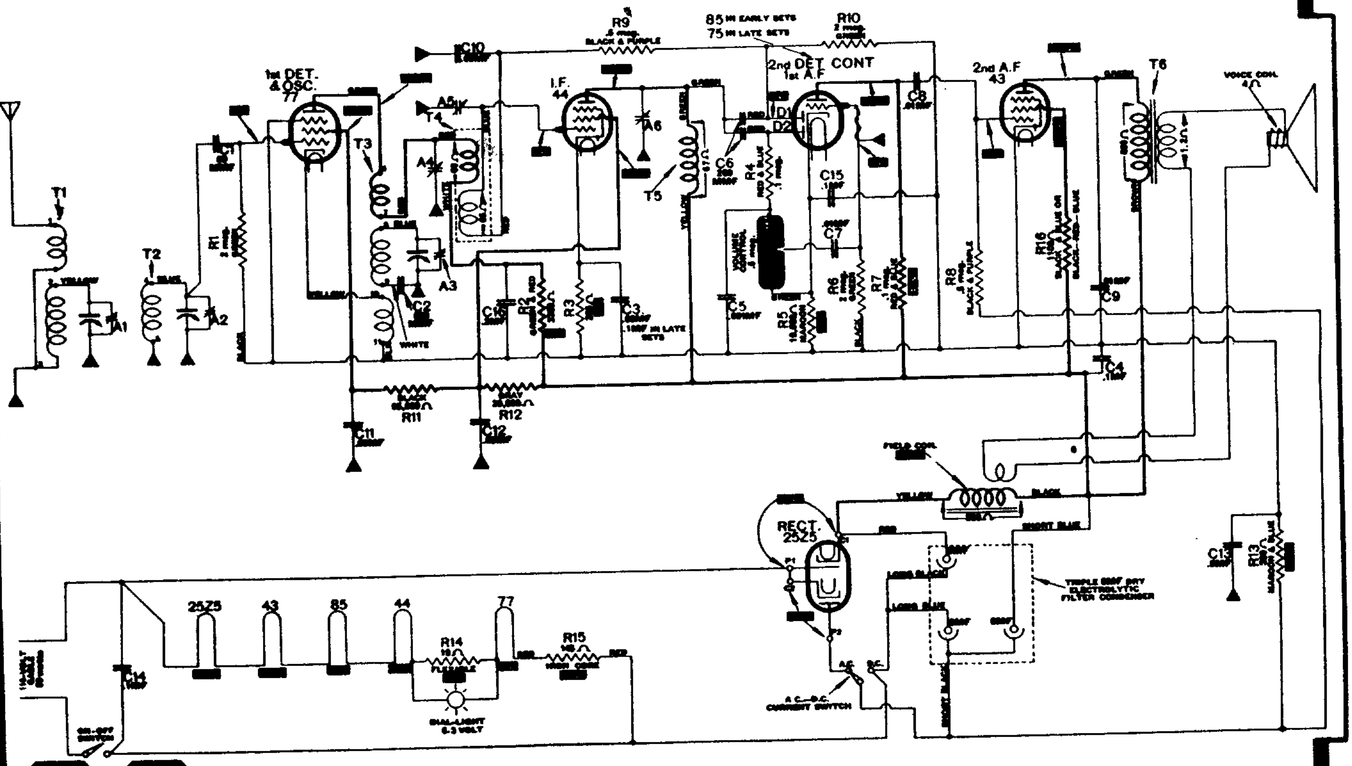
MODEL 155, 1st TYPE, Below Serial No. 7086900



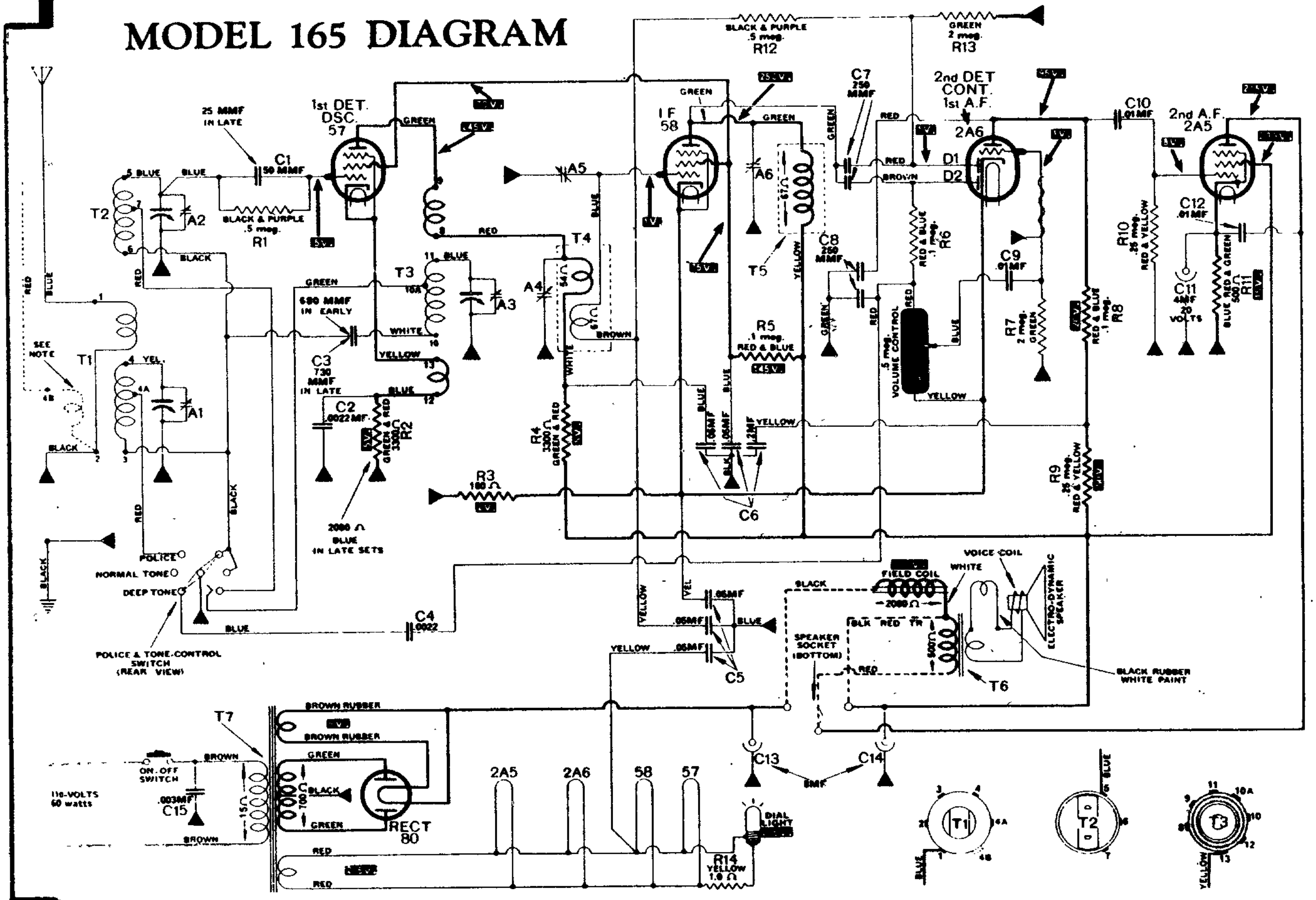
First arrangement of parts under chassis in 1st-type Model 155.

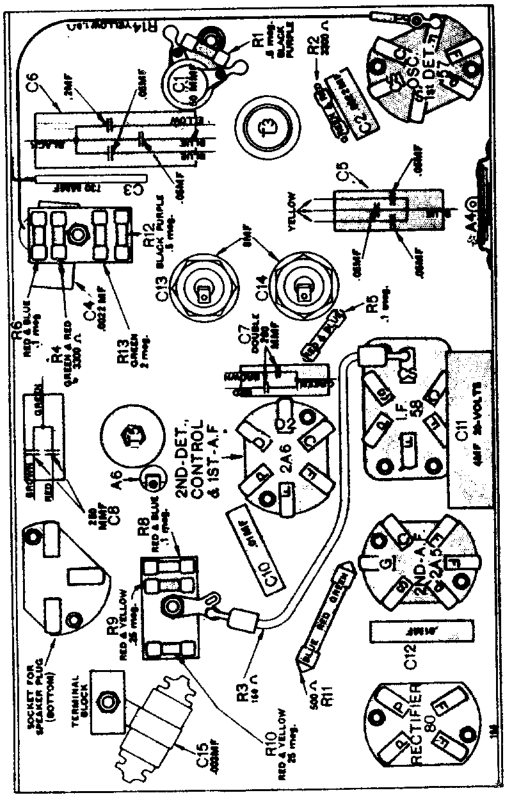


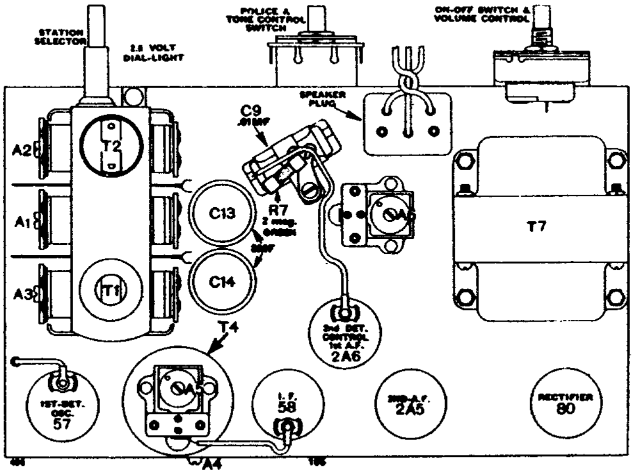
Third arrangement of parts under chassis in 1st-type Model 155.



MODEL 165 DIAGRAM







In late type 165, the 1st-detector bias resistor R2 is 2000 ohms, ½ watt (blue).

In a few early 165 sets, the tracking condenser C3 is 680MMF.

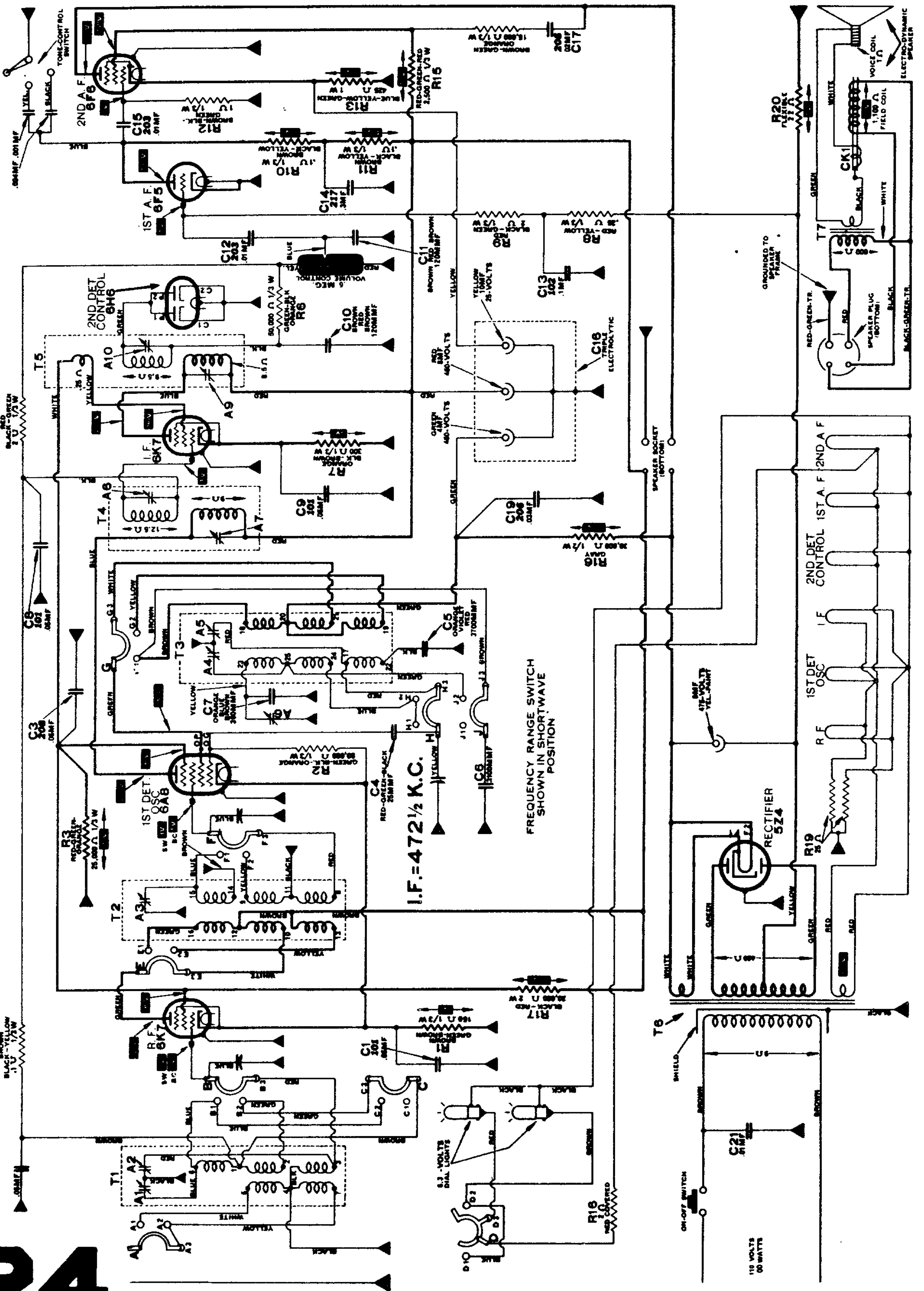
In late sets, C1 is 25MMF instead of 50MMF.

The additional primary, shown in dotted lines on No. I R.F.T., is used in some 165 sets.

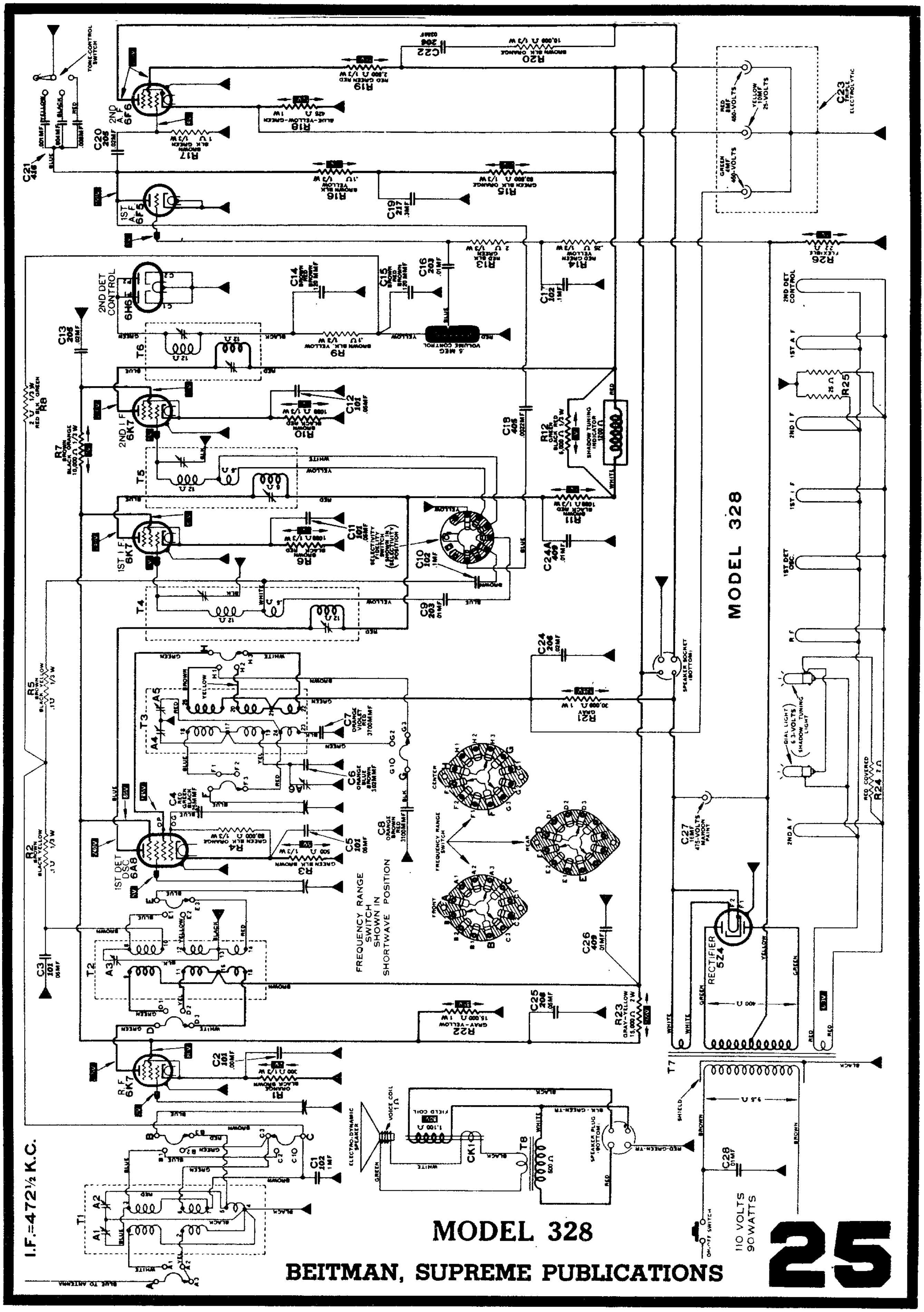
I.F. 262.5 KC.

MODELS 317 AND 337

ATWATER KENT RADIO



COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

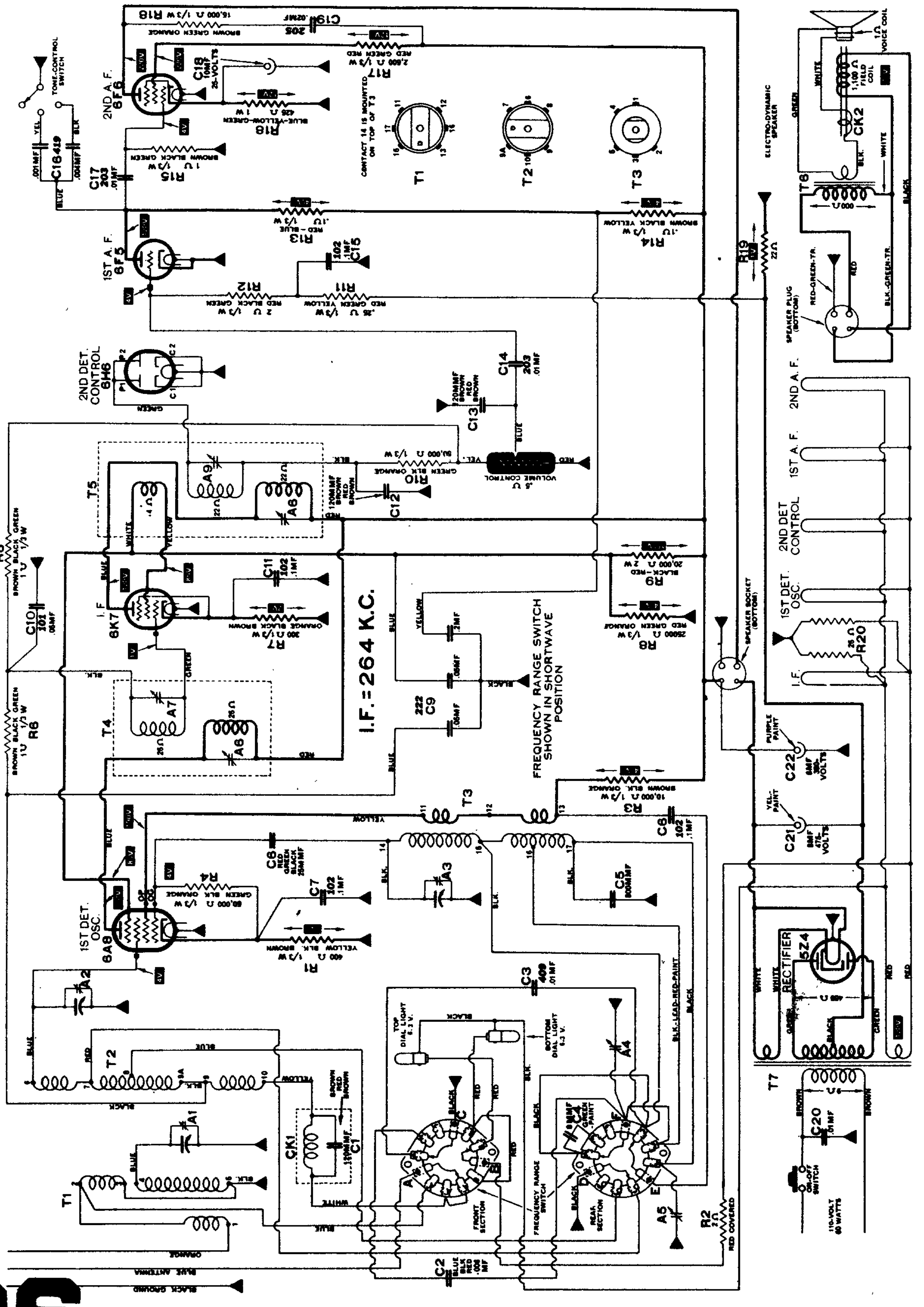


MODEL 328

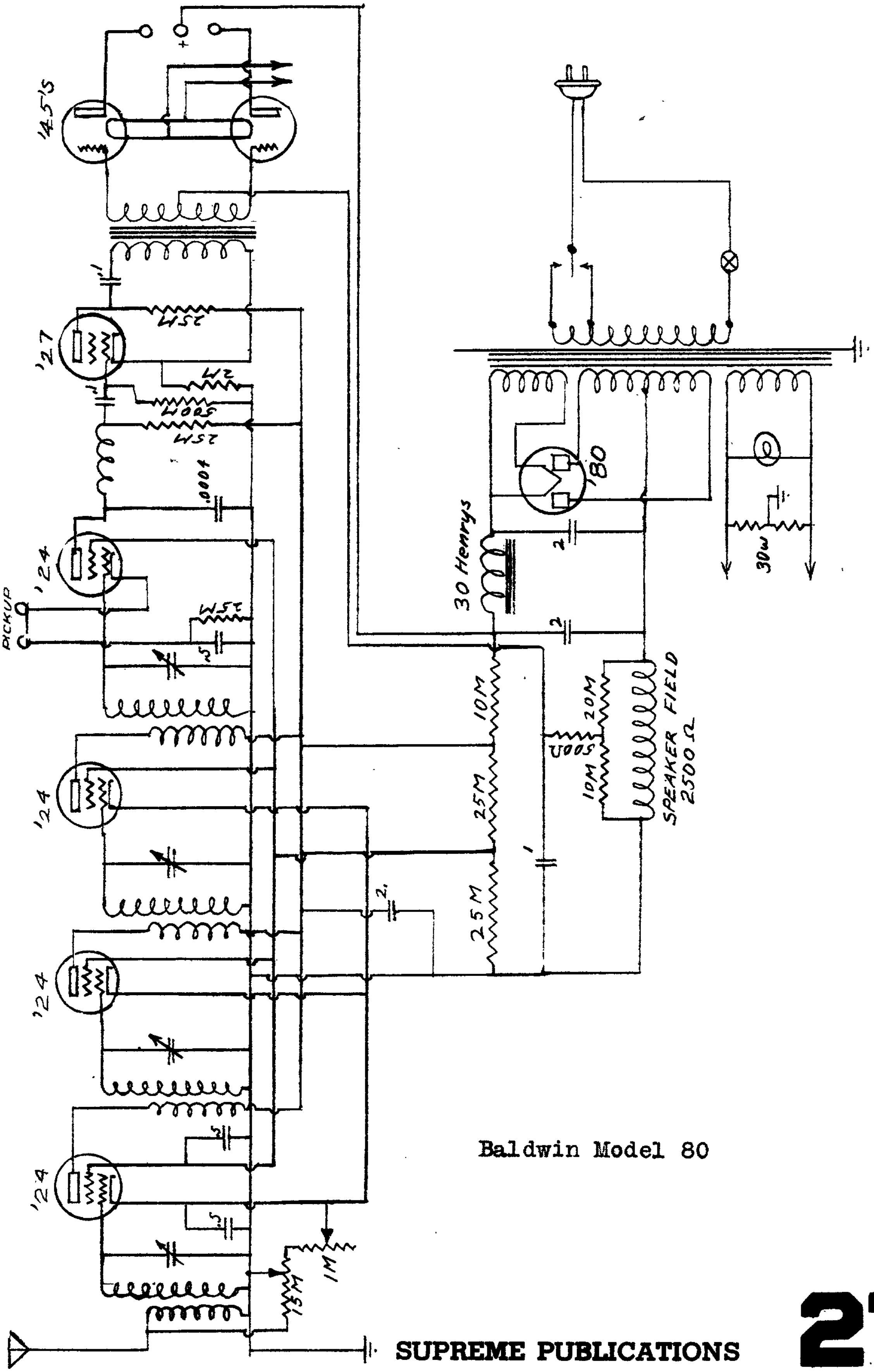
110 VOLTS
90 WATTS

ATWATER KENT RADIO

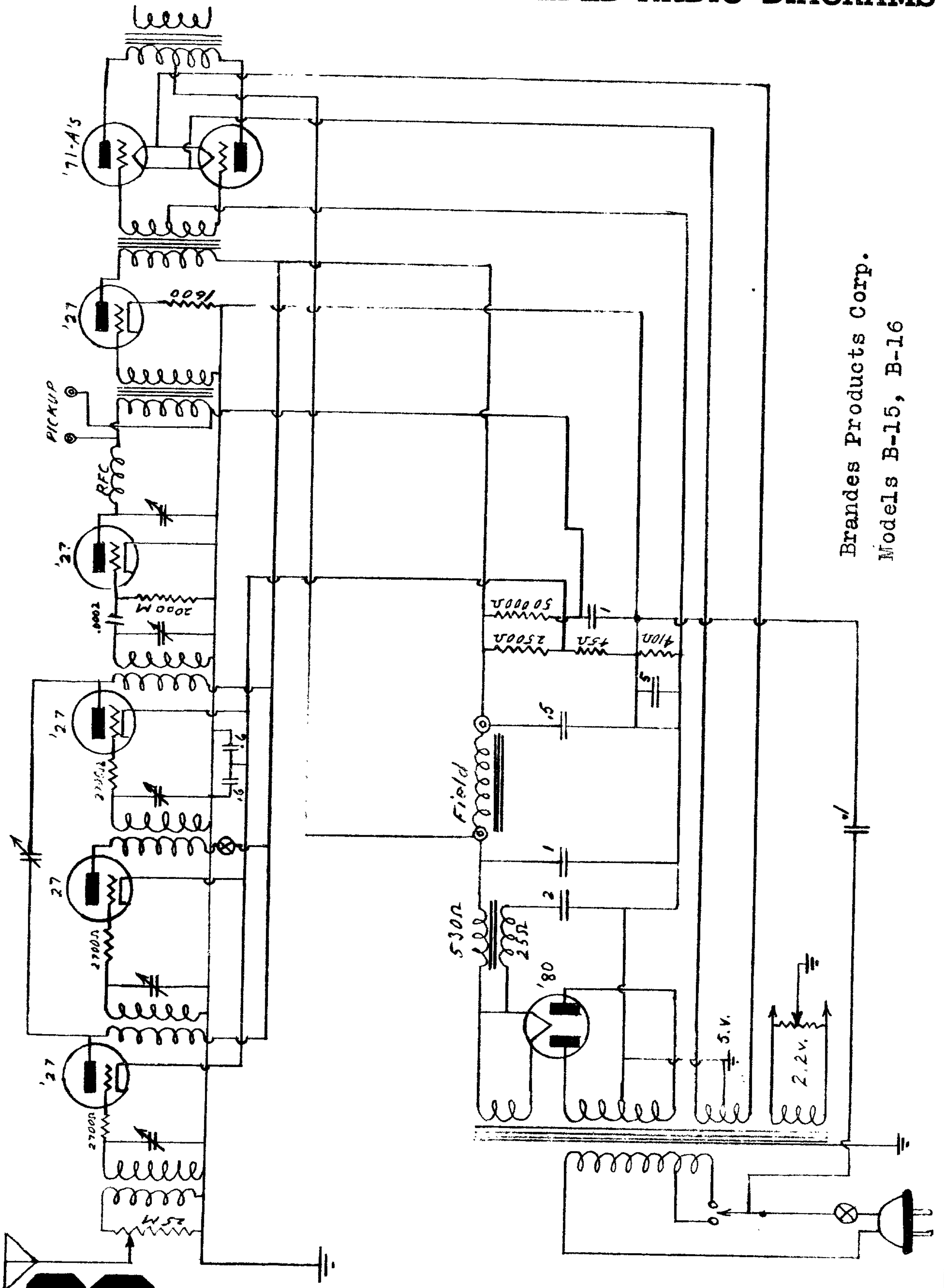
MODELS 856 AND 976



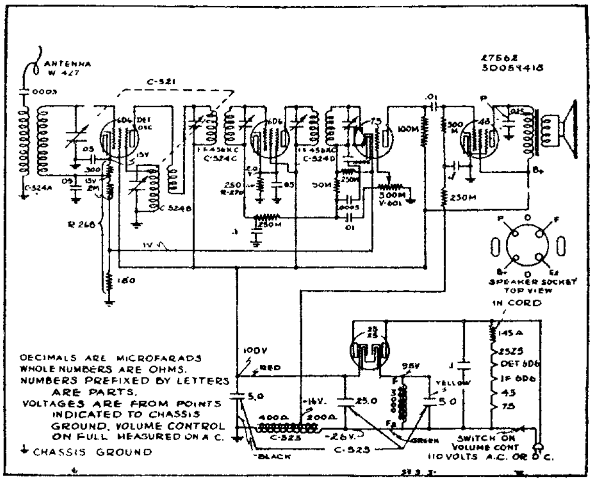
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS



Baldwin Model 80



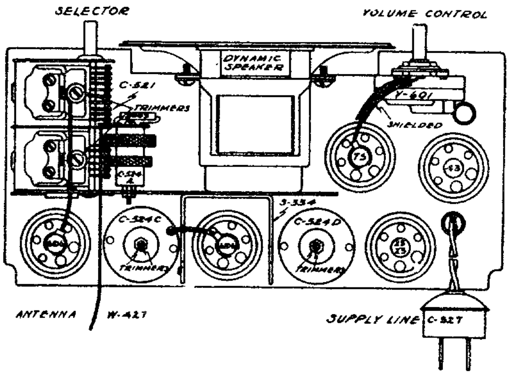
Brandes Products Corp.
Models B-15, B-16



Schematic circuit diagram Model 525 AC-DC Superheterodyne, with automatic volume control

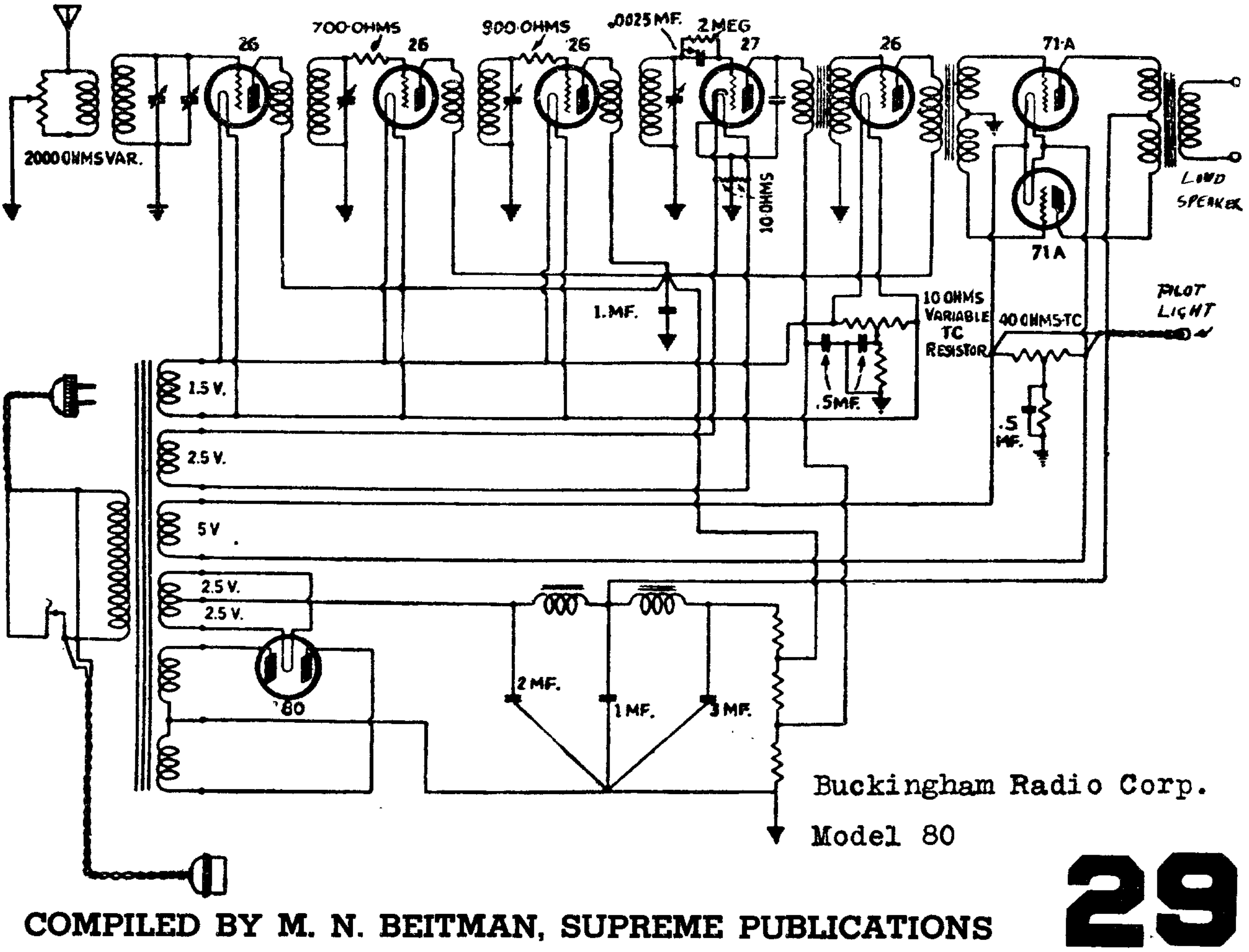
Should it be necessary, at any time, to rebalance this set the procedure is as follows: Attach a 456 kilocycle oscillator to the grid of the 6D6 tube in back of the variable condenser and adjust the trimming condensers of the I. F. transformers to maximum deflection on an output meter connected across the primary of the speaker input transformer. While adjusting these trimmers, the variable condenser should be at the maximum capacity position—at the extreme right of its rotation.

Next disconnect the antenna wire and connect an oscillator in series with a 75 mmf. condenser to the antenna coil. Rotate the condenser plates to the minimum capacity position—extreme left turn, and adjust the trimmer condenser of the rear section of the variable condenser to resonance with an oscillator set at 1725 kilocycles, then adjust the condenser of the front section of the variable condenser to resonance. Align at 1400—1200—1000—800—600—550 kilocycles. Lead slotted plates of variable condenser if necessary.



Belmont Radio Corp.

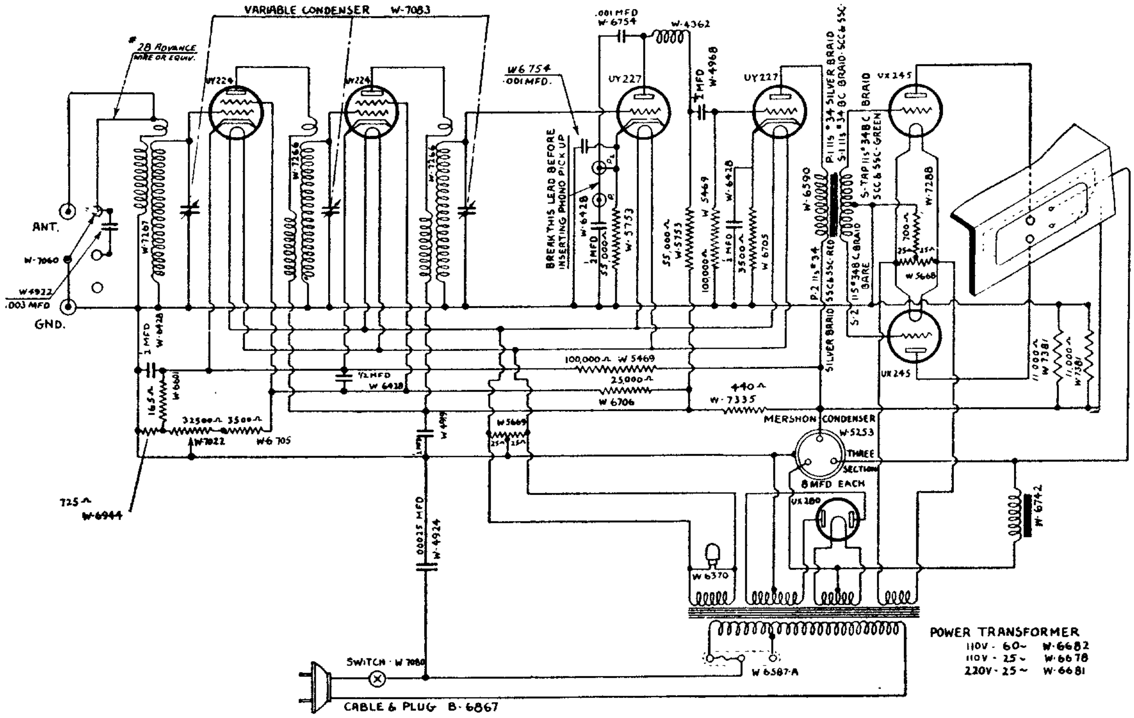
MODEL 525



Buckingham Radio Corp.

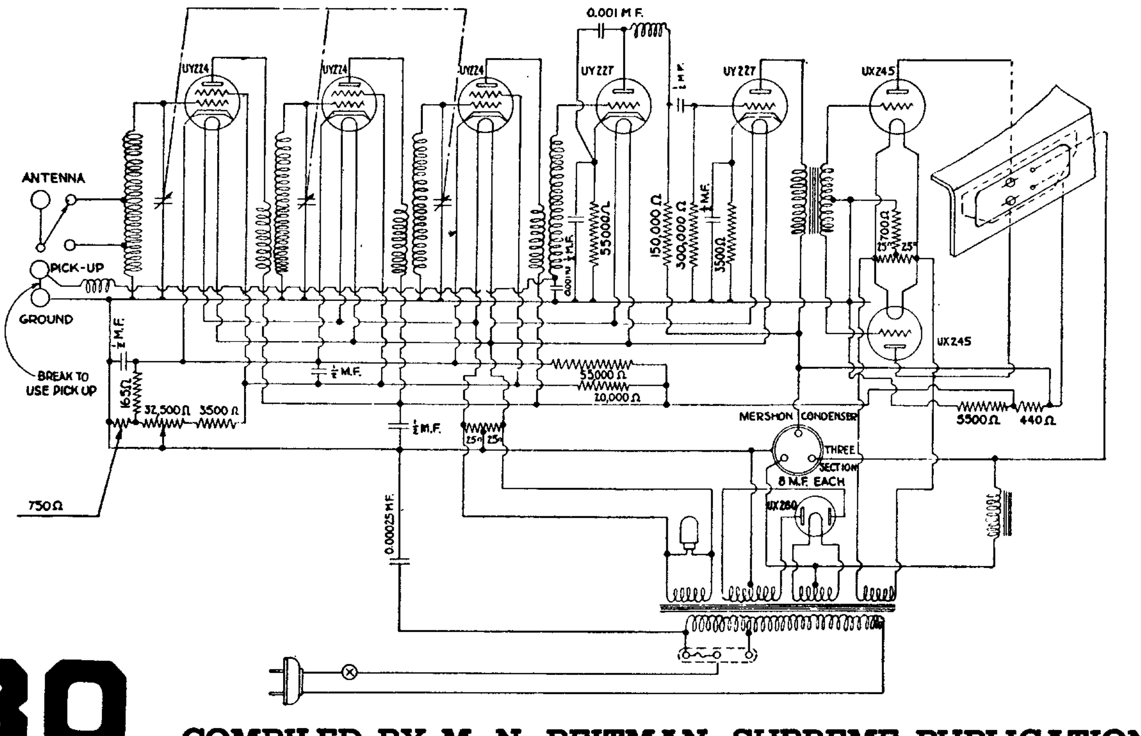
Model 80

MODELS 30S, 31S, 33S, 34S.



Crosley Corp., Cincinnati, Ohio

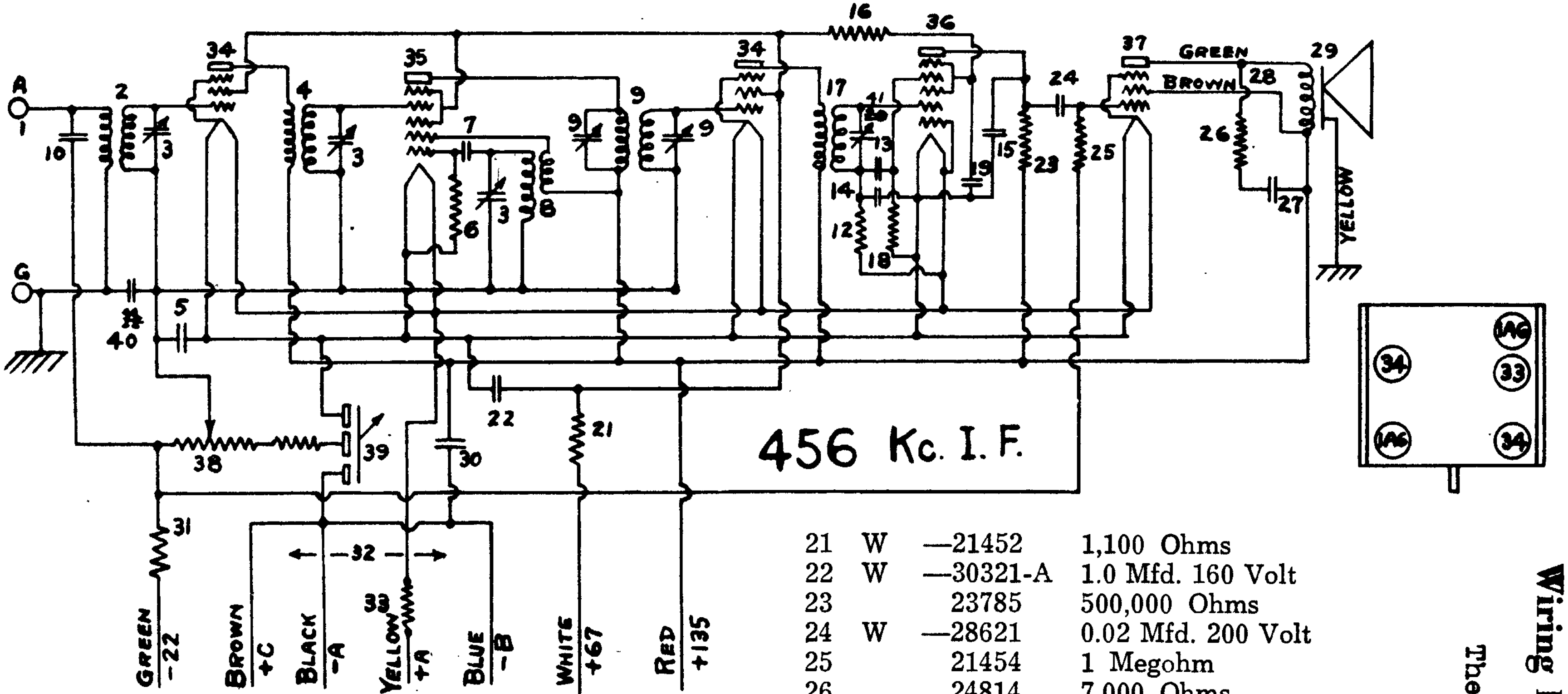
Models 40S, 41S, 42S, 82S



MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

Wiring Diagram For Model 5B3

The Crosley Corp.



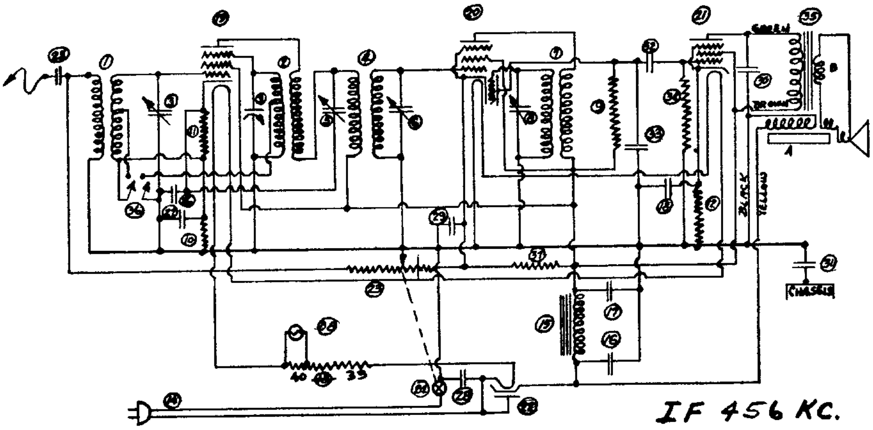
4	G17	—32001	R. F. Transformer
5	W	—24049-B	0.1 Mfd. 200 Volt
6		21875	100,000 Ohms
7	G1	—34004	.025 Mfd. (Mica)
8	G9	—32002	Oscillator Coil
9	G9	—32004	1st I. F. Trans.
10	W	—28621	.02 Mfd. 200 Volt
12		23785	500,000 Ohms
13	W	—28621	.02 Mfd. 200 Volt
14	W	—26152-A	.00015 Mfd. 400 Volt
15			.0001 Mfd. 400 Volt
16		21237-A	60,000 Ohms
17	G13	—32004	2nd I. F. Trans.
18		21454	1 Megohm
19	W	—24049-B	0.1 Mfd. 200 Volt
21	W	—21452	1,100 Ohms
22	W	—30321-A	1.0 Mfd. 160 Volt
23		23785	500,000 Ohms
24	W	—28621	0.02 Mfd. 200 Volt
25		21454	1 Megohm
26		24814	7,000 Ohms
27	W	—28619	.006 Mfd.
28	W	—27933	Speaker Cable
29		30418	336-3B Speaker
30	W	—29910-A	0.25 Mfd. 200 Volt
31		27121	5,000 Ohms
32	G2	—29237	Battery Cable
33	G2	—23300	Air Cell Resistor .53 Ohms
34	G31	—27975	34 Socket
35	G55	—27975	1A6 Socket
36	G4	—33070	1A6 Flex. Socket
37	G36	—27975	33 Socket
38	W	—32649	Volume Cont. 10,000 Ohms
39			Switch 3. P. S. T.
40	W	—24049-B	O.1 Mfd. 200 Volt

Figures in first column correspond to figures in diagram

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

1	G15-24995	ANTENNA COIL
2	G20-24996	OSCILLATOR COIL
3	B-28592E	GANG CONDENSER
4	G7-25444	1ST I.F. TRANS.
5	G8-25948	1ST I.F. TUNING COND.
6		I.F. SEC. TUNING COND.
7	G9-25445	2ND I.F. TRANS.
8	G9-25948	2ND I.F. TUNING COND.
9	26577	3 MEG.
10	28588	2700 Ω
11	W-28589	350 Ω
12	W-22514	750 Ω
13	~~W-24599~~	~~225 Ω~~
14	W-27888A	CORD & PLUG
15	G1-28859	POWER SUPPLY FIL. CHOKE
16	W-29264A	16 MFD. 125V. D.C.
17		16 MFD. 100V. D.C.
18		8 MFD. 10V. D.C.
19	G39-28807	78 SOCKET
20	G49-28807	6F7 SOCKET
21	G15-28807	38 SOCKET
22	G50-28807	12Z3 SOCKET
23	W-28594A	VOLUME CONTROL
24		S.P.S.T. SWITCH
25	W-28620	0.003 MFD. 200V.
26	W-28623	0.02 MFD. 200V.
27		0.02 MFD. 200V.
28	W-29271	0.02 MFD. 400V.
29		0.02 MFD. 400V.
30	W-29265	0.008 MFD. 200V.
31		0.05 MFD. 200V.
32	W29266A	0.03 MFD. 400V.
33		0.00017 MFD. 400V.
34	26578	5 MEG.
35	29319	346-2M SPEAKER
36	W-28959A	D.P.S.T. SWITCH
37	22199A	25,000 Ω
38	W-4099A	6.3V. DIAL LIGHT.
39	W-29591A	244 Ω
40		26.7 Ω
41		
42		
43		
44		
45		

Crosley Model 172



IF 456 KC.

Control Grid Voltages

Pentode ..0.5 to 1.5
I. F. ......1.5 to 2.5 (20-30 vol. cont. off)
1st Det. ..5.5 to 7.5
2nd Det. ..4.0 to 6.0

Filament Voltages

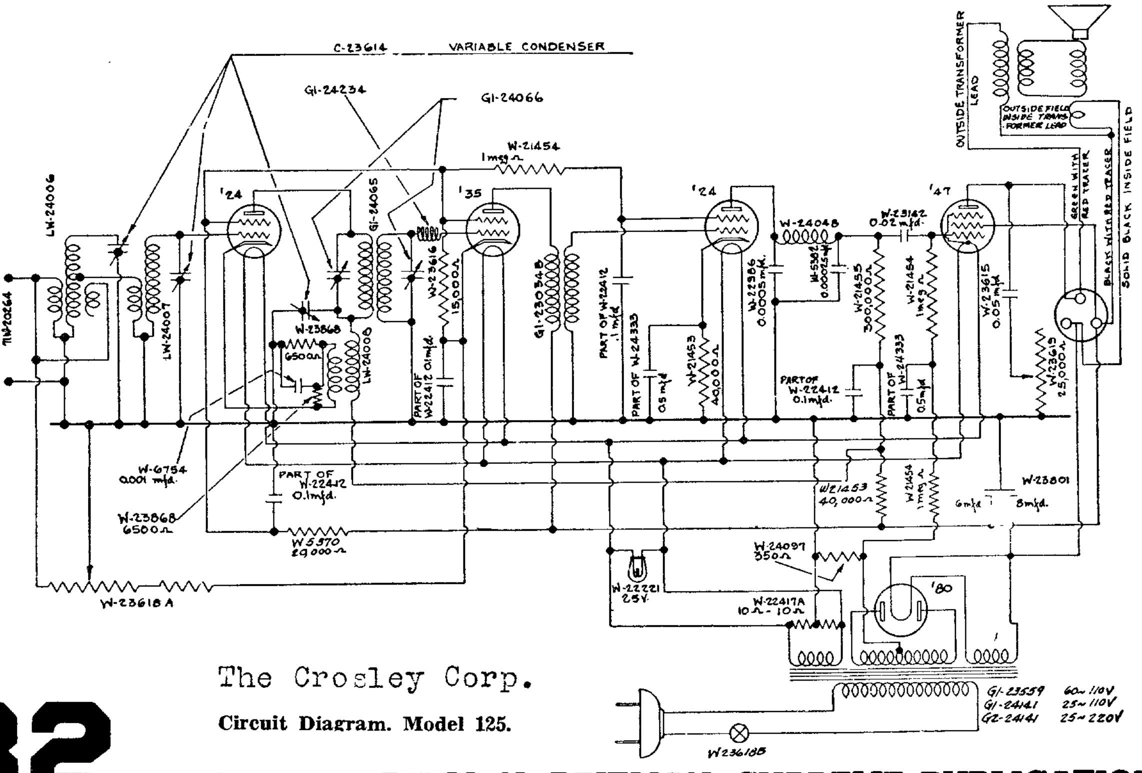
All tubes but rectifier ....2.3 to 2.5
Rectifier tube ....4.6 to 5.0

Screen Grid Voltages

Pentode ..200 to 230
I. F. .... 75 to 95
1st Det. .. 75 to 95
2nd Det. 15 to 25 (250V scale), 3-8 (50V scale)

Plate Voltages

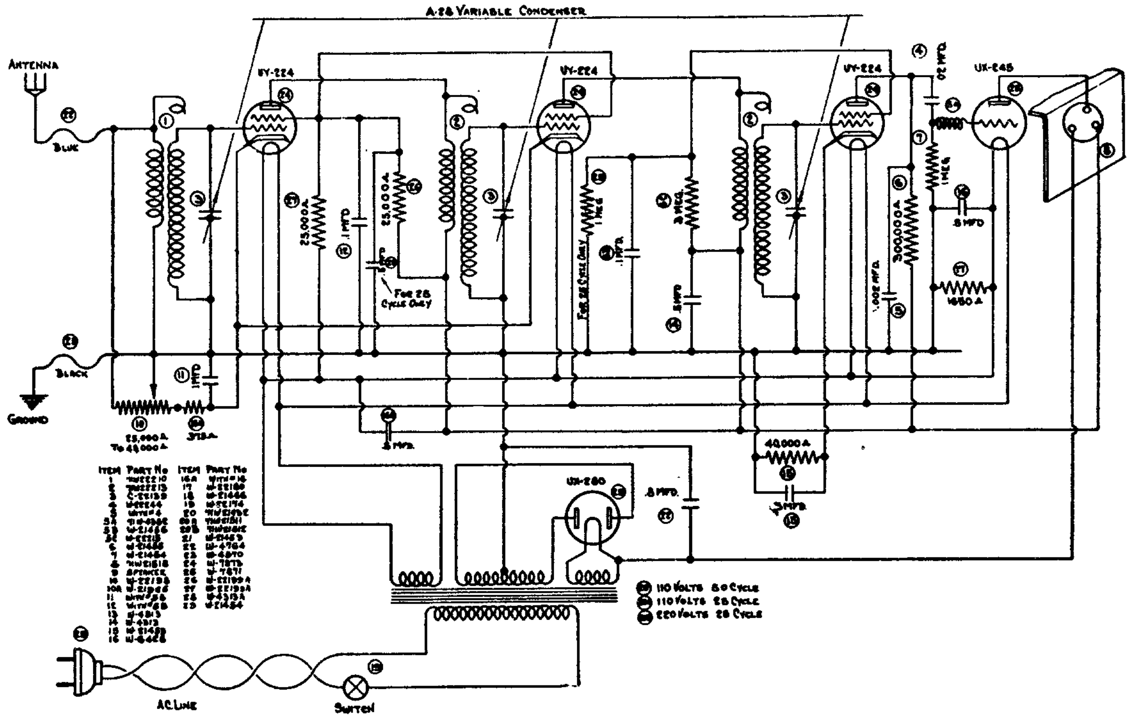
Pentode 200 to 230
I. F. ....200 to 230
1st Det. ..160 to 180
2nd Det. 75 to 90 (250V scale), 20-30 (50V scale)



The Crosley Corp.

Circuit Diagram. Model 125.

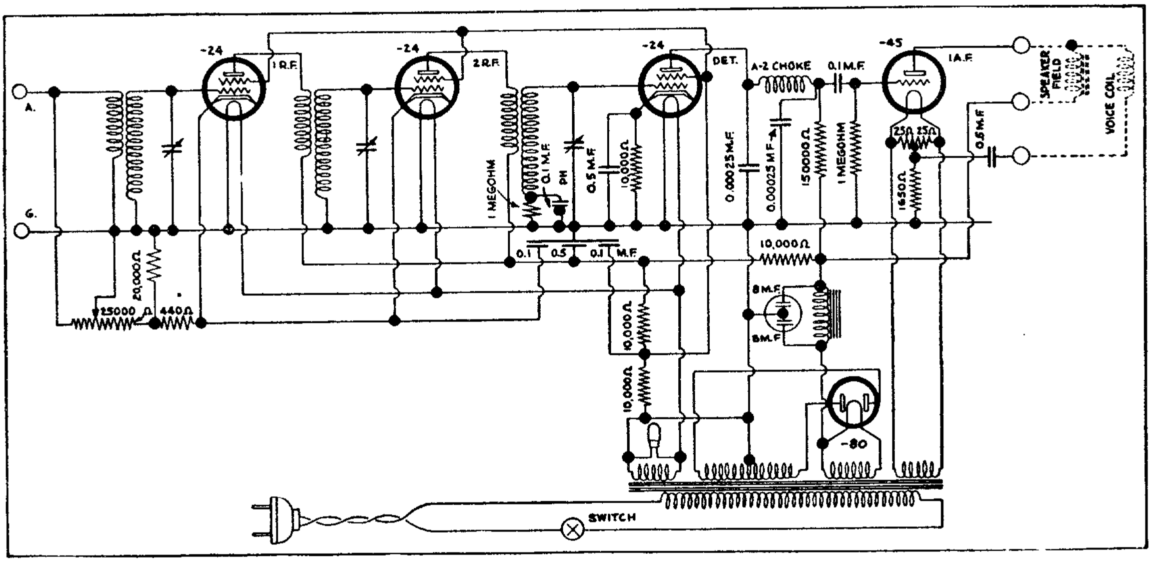
MODEL 48



Circuit Diagram Model 48

The Crosley Corp.

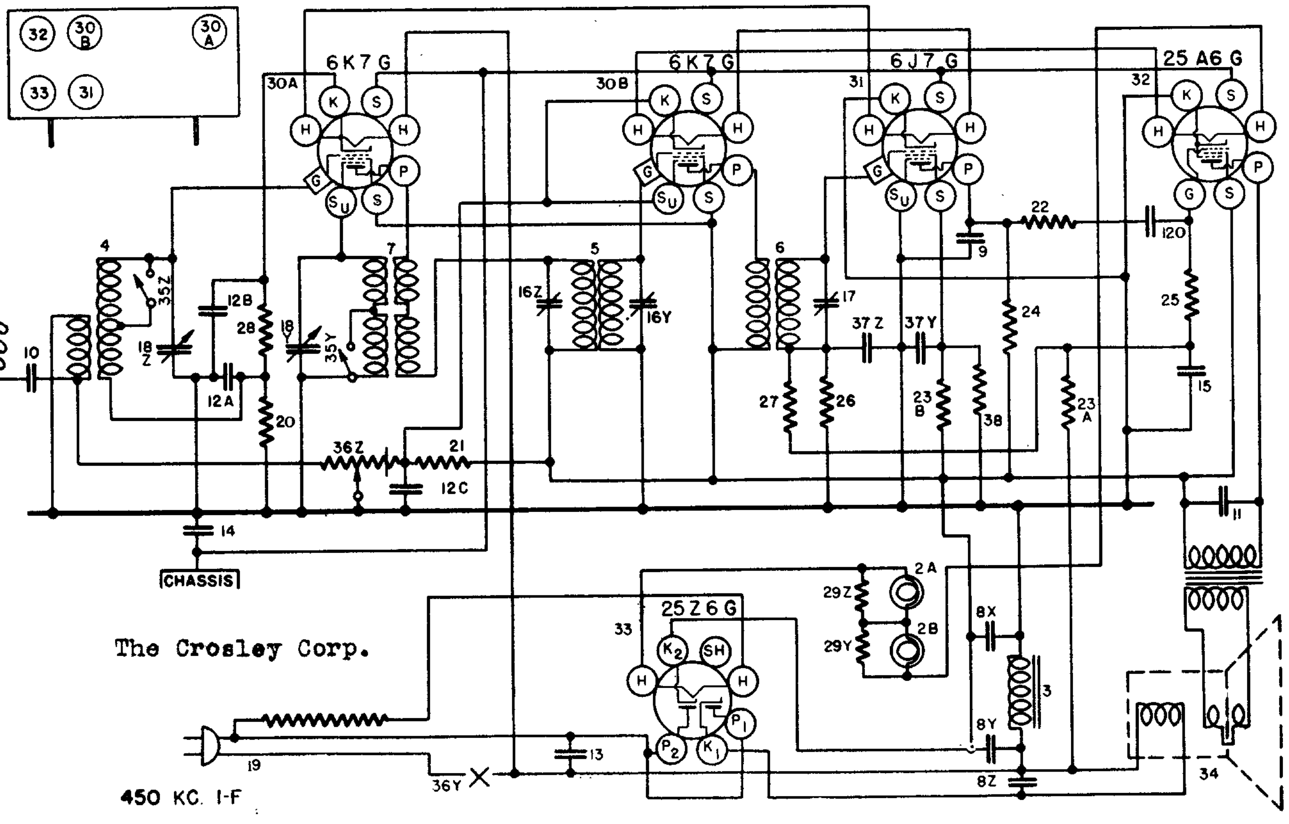
Models 53, 54 and 57



MODEL 536 AND 5536

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description	
1	W —29784B	Antenna—Flexible	
2A	W — 4099B	Dial Light	
2B	W — 4099B	Dial Light	
	G6 —27134	Dial Light Socket Assembly	
3	G4 —28859	Filter Choke	
4	G106—32000	Ant. Coil	
5	G104—32004	1st I-F Coil	
6	G103—32004	2nd I-F Coil	
7	G94 —32002	Osc. Coil	
87 8Y 8X	W —29804A	Condenser, 8 Mfd. 125 V. 16 Mfd. 125 V. 25 Mfd. 100 V.	
9	G1 —34002	Condenser, .00025 Mfd. (Molded)	
10	W —28620	Condenser, .003 Mfd. 200 V.	
11	W —23191A	Condenser, .01 Mfd. 400 V.	
12A	W —36541	Condenser, .02 Mfd. 160 V.	
12B	W —36541	Condenser, .02 Mfd. 160 V.	
12C	W —36541	Condenser, .02 Mfd. 160 V.	
12D	W —36541	Condenser, .02 Mfd. 160 V.	
13	W —32780B	Condenser, .05 Mfd. 400 V.	
14	W —24049C	Condenser, 1 Mfd. 160 V.	
16	W —37075	Condenser, 2 Section Trimmer	
17	W —40998	Condenser, 1 Section Trimmer	
18	G22 —33001	2 Section Var. Tuning Condenser	
	C —40926	Dial Glass—536 only	
	W —40632B	Pointer Disc—536 only	
	W —41014A	Dial Glass Bracket R-H—536 only	
	W —41013A	Dial Glass Bracket L-H—536 only	
	W —41227	Drive Chain—536 only	
	W —40633B	Bearing Support—536 only	
	W —41112A	Driven Sprocket—536 only	
	W —41113A	Driver Sprocket	
	W —40486	Pointer Disc Mtg. Screw	
	C —40927	Dial Glass—5536 only	
	B —40818B	Pointer Disc—5536 only	
	W —41158	Support Bracket L-H—5536 only	
	W —41143	Support Bracket R-H—5536 only	
	W —40797	Dial Glass Bracket—5536 only	
	W —41162	Drive Chain—5536 only	
	W —41160	Bearing Bracket—5536 only	
	W —41159A	Shaft—5536 only	
	W —40909	Spring Washer—5536 only	
	W —31840A	Snap Ring—5536 only	
19	B —40999	Power Cord & Plug	
20	—36316	Resistor, 2700 Ohm ¼W.	
21	— 4921C	Resistor, 10,000 Ohm 1W.	
22	—35928	Resistor, 60,000 Ohm ¼W.	
23A	—35600	Resistor, 100,000 Ohm ¼W.	
23B	—35600	Resistor, 100,000 Ohm ¼W.	
24	—35601	Resistor, 300,000 Ohm ¼W.	
25	—36322	Resistor, 500,000 Ohm ¼W.	
26	—35927	Resistor, 2 Megohm ¼W.	
27	—33490	Resistor, 10 Megohm ¼W.	
28	W —28589	Resistor, 350 Ohm ½W. Flex.	
29	W —41000	Candohm—2 Sections	
30A	G151—36400	Socket Type 6K7	
30B	G151—36400	Socket Type 6K7	
31	G157—36400	Socket Type 6J7	
32	G161—36400	Socket Type 25A6	
33	G162—36400	Socket Type 25Z6	
	W —40911	Tube Shield	
	W —27981A	Tube Shield Base	
34	B —41012	Speaker 237BL9	
	W —40593	Speaker Mtg. Bracket	
	— 6415	Mtg. Bracket Screw	
35	—41004	Band Selector Switch	
36Z	—41002	Volume Control 4800 Ohm Tap 160 Ohm	
36Y		Line Switch	
	B —40590	Escutcheon	536 only
	D — 28	Escutcheon Mtg. Screws (4)	
	W —41019	Knob	
	W —40839	Escutcheon	5536 only
	W —40840	Escutcheon Plate	
	W —29760A	Escutcheon Pin	
	W —41019	Knob (2)	
	W —41021	Knob (1)	



The Crosley Corp.

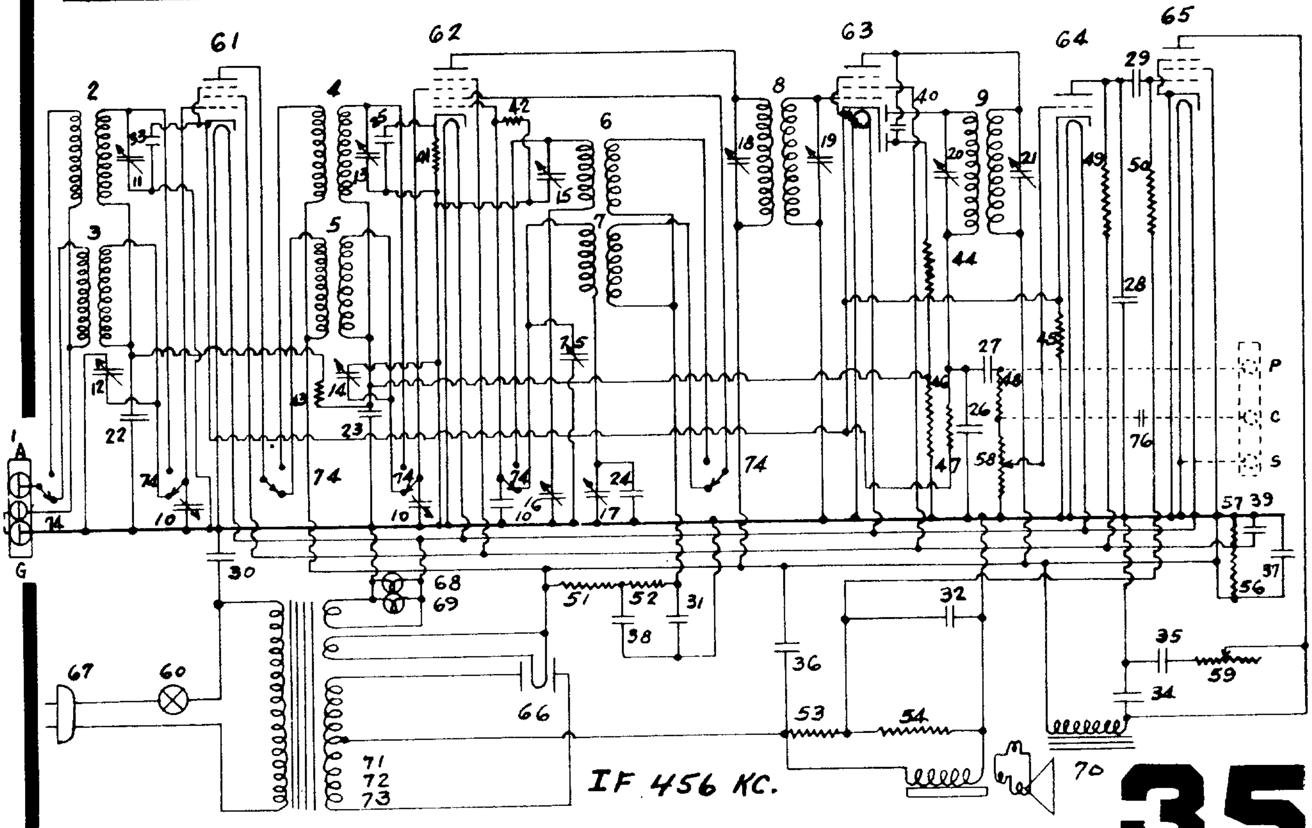
450 KC. I-F

PARTS LIST—MODEL 6H2

* Figures in 2nd last column refer to parts shown in wiring diagram of Model 6H2

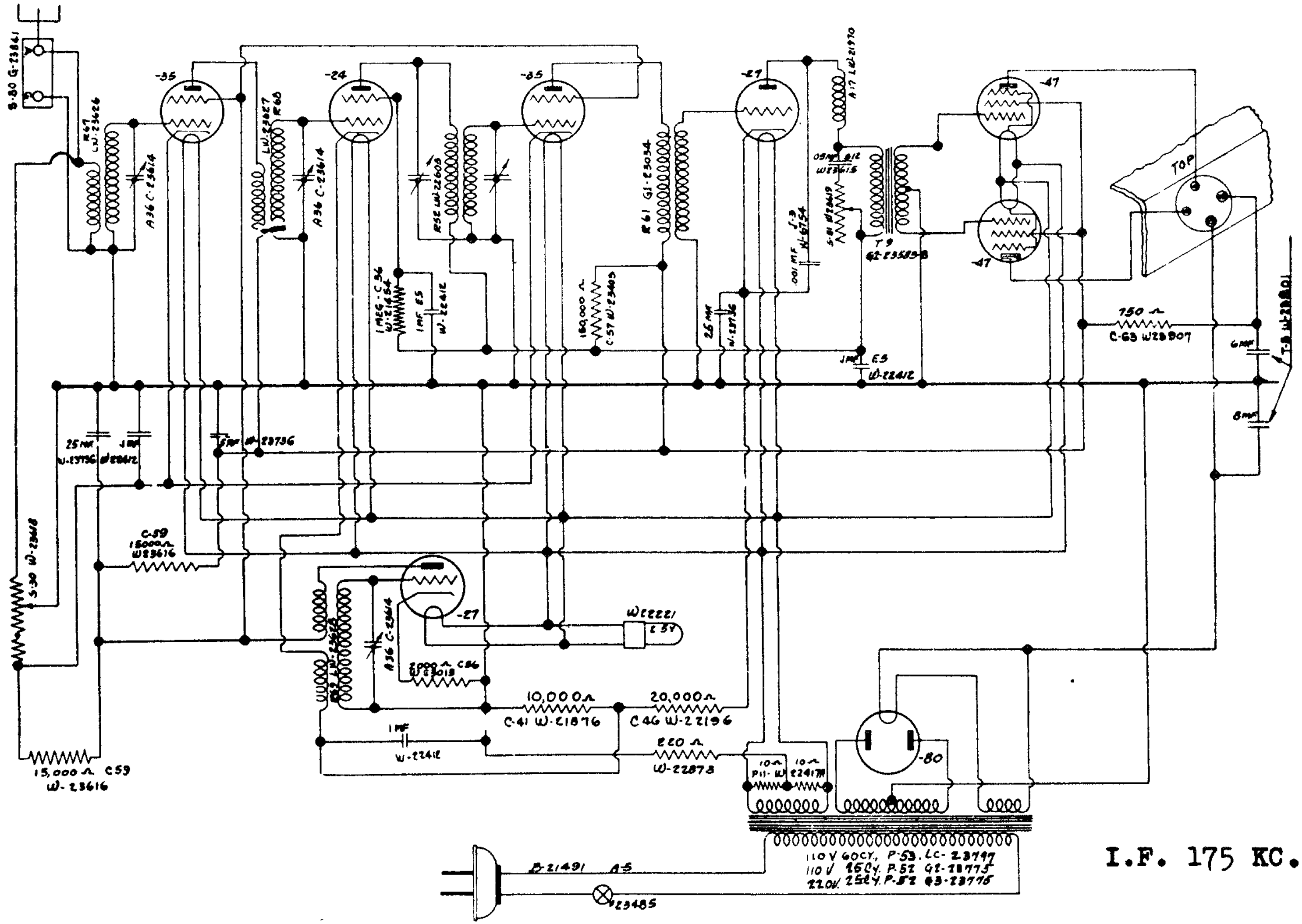
Qty.	Part No.	Description	Item
1	G3-32000	Antenna Coil (Low Freq.)	2
1	G1-32002	Antenna Coil (High Freq.)	3
1	G2-32001	R. F. Trans. Coil (L. F.)	4
1	G1-32001	R. F. Trans. Coil (H. F.)	5
1	G2-32002	Oscillator Coil (L. F.)	6
1	G1-32002	Osc. Coil (H. F.)	7
1	G9-32004	1st I. F. Trans. (With Trimmers	8-18 19
1	G10-32004	2nd I. F. Trans. (With Trimmers	9-20 21
6	W25200	Coil Shield Socket	
3	W30802	Coil Shield	
2	W25025A	Coil Shield	
1	W25025A	Coil Shield	
3	W26891	Insulating Washer L. F. Ant.-R. F. and Osc.	2-4-6
3	W21541B	Retaining Ring	2-4-6
2	W30026	Retaining Ring	3-5-7
1	G1-33008	L. F. & H. F. Antenna Trimmer Cond.	11-12
1	G1-33008	L. F. & H. F. R. F. Trimmer Cond.	13-14
1	G15-33009	L. F. & H. F. Osc. Trimmer Condenser	15-75
1	G2-33007	L. F. & H. F. Osc. Seriea Trimmer Cond.	16-17
1	G19-33002	Variable Tuning Condenser Gang	10
1	G5-32086	Dial Drive Assm.	
1	W32208A	Dial Hand	
2	W32293	Dial Hand Nut	
1	G75-27456	6D6 Socket	61
1	G47-27456	6A7 Socket	62
1	G48-27456	6B7 Socket	63
1	G80-27456	76 Socket	64
1	G25-27456	42 Socket	65
1	G6-27456	80 Socket	66
3	W26010	Tube Shield Base	
2	W27328A	Tube Shield (6A7, 6B7)	
1	B26009C	Tube Shield (6D6)	
1	G6-30745	Power Transformer 60 cy. 110 V.	71
	G7-30745	Power Transformer 25 cy. 110 V.	72
	G8-30745	Power Transformer 25 cy. 220 V.	73
1	B32285	Band Change Switch	74

Qty.	Part No.	Description	Item
1	B30375A	Cable & Plug	67
1	W28552	Level Control (Volume) (3 Megohms)	58
2	G4-27134	Dial Light Brkt Assm.	
1	W25594B	Tone Control (80000 Ohm) & Line Switch	59-60
1	G16-26719	Ant.-Gnd. Terminal	1
		FILTER & BY-PASS CONDENSERS	
1	W29097C	8.-8.-8. Mfd. 450 V.-450 V.-250 V.	37-38 39
1	W26194B	12. Mfd. 475 V.	36
1	W30321	1. Mfd. 160 V.	32
3	W32379	0.02 Mfd. 200 V.	22 23 25
1	W32304	0.0014 Mfd.	24
1	W30322A	0.00017-0.006 Mfd. 200 V.-200 V.	26-27
1	W25537A	0.001-0.03 Mfd. 400 V.-400 V.	28-29
1	W30805	0.01 Mfd. 400 V.	30
1	W32378	0.01 Mfd. 400 V.	31
1	W24784	0.25 Mfd. 200 V.	33
1	W25517	0.008-0.05 Mfd. 400 V.-400 V.	34-35
1	W27540	0.0005 Mfd. 400 V.	40
		RESISTORS	
1	W28589	350 Ohms (Flexible)	41
1	21453	40000 Ohms	42
4	23785	500000 Ohms	43-48 50-53
2	26577	3 Megohms	44-46
1	W27504	100 Ohms (Flexible)	45
1	21454	1 Megohm	47
1	23403	150000 Ohms	49
1	21876	10000 Ohms	51
1	24814	7000 Ohms	52
1	33474	120000 Ohms	54
1	W31883	8500-25000 Ohms	56-57
3	W32352	Knob	
1	W32353	Knob	
1	W31007A	Speaker Cord (4 Lead)	
1	W32219A	Dial Glass	
1	W32220A	Dial Glass Retainer	
1	B32190C	Escutcheon	
1	W33106A	Escutcheon Gasket	
4	D28	Escutcheon Screws (.10 doz)	



Crosley Radio Corporation

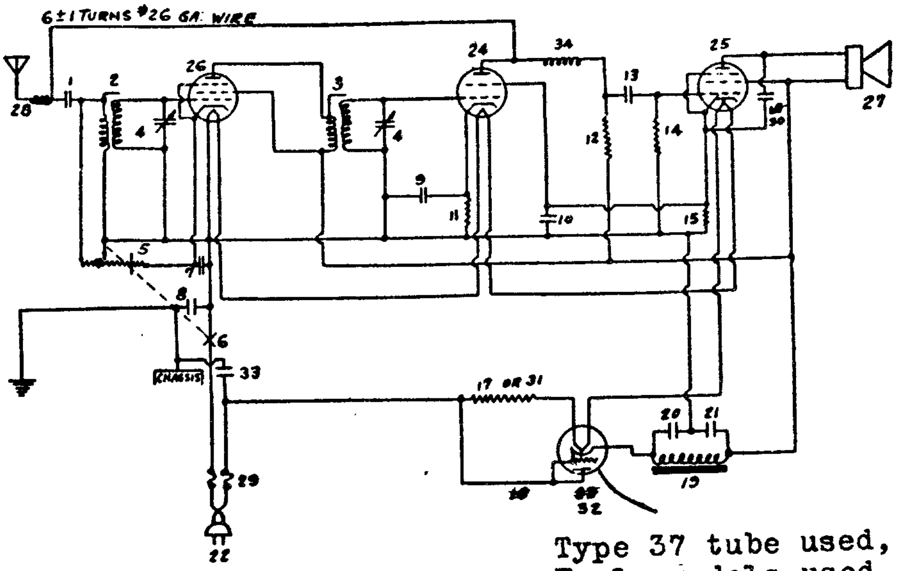
Model 124



I.F. 175 KC.

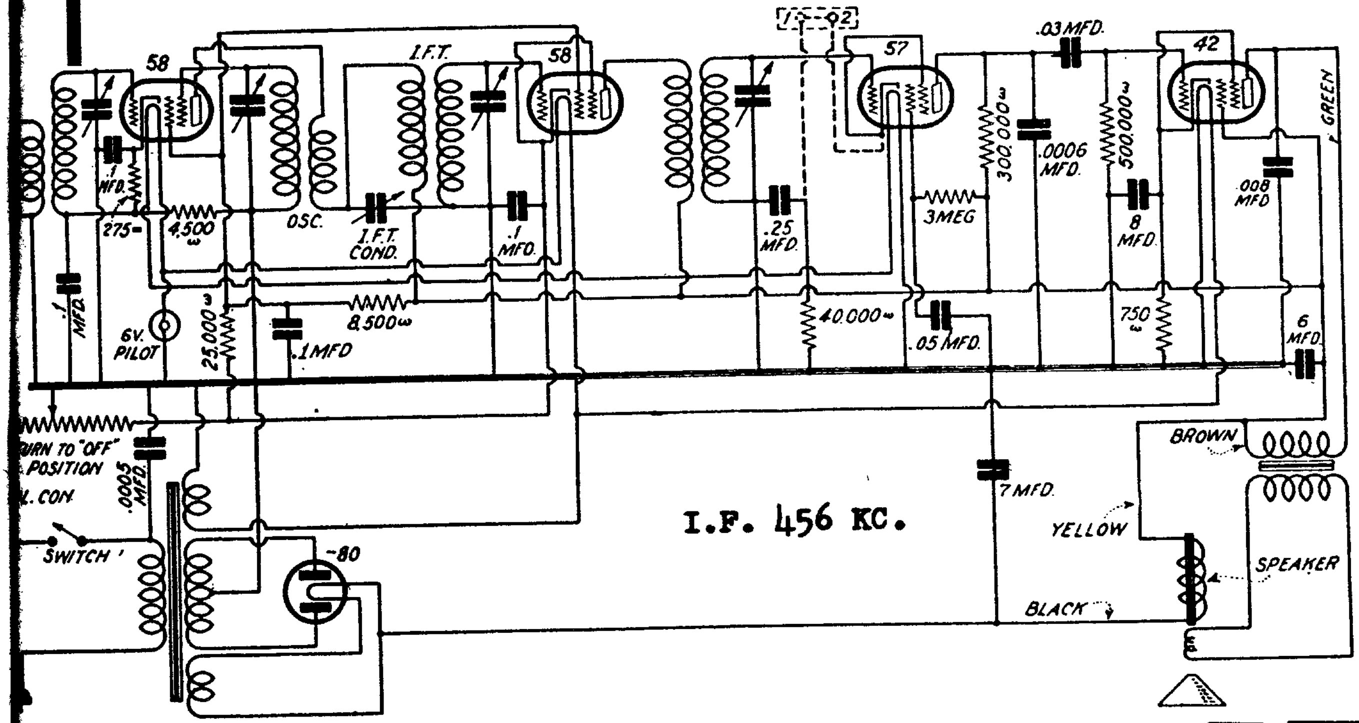
Crosley Model 147

1	W-27652	.003 MFD.
2	LW-27680	ANTENNA COIL
3	LW-27681	INTERSTAGE COIL
4	B-27706	TUNING CONDENSER
5	W-27694	VOLUME CONT. 4500Ω
6		LINE SWITCH
7	W-25438	.1 MFD.
8		.1 MFD.
9	W-27677A	8 MFD.
10		8 MFD.
11	W-21237A	60,000 Ω
12	W-26577	3 MEG.
13	W-27203	.02 MFD.
14	W-26578	5 MEG.
15	W-26690	4500 Ω
16	~~W-28438~~	~~.003 MFD.~~
17	W-27675	300 Ω RED DEV.
18	~~[illegible]~~	~~10 MH.~~
19	G2-24774	FILTER CHOKE
20	W-27676	4 MFD.
21		4 MFD.
22	LW-27815	CORD & PLUG
23		~~R SOCKET~~
24	G11-27727	-36 SOCKET
25	G15-27727	-38 SOCKET
26	G17-27727	-39 SOCKET
27	27790	340 SPEAKER
28	W-26072	ANTENNA LEAD
29	W-4639C	2 AMP. FUSE
30	W-27652	.003 MFD.
31	W-28100	300 Ω CANDOHM
32	G12-27727	- 37 SOCKET
33	W-27652	.003 MFD.
34	G1-24234	FILTER CHOKE



Type 37 tube used,
Early models used
type KR tube.

Crosley Model 148



I.F. 456 KC.

The Crosley Radio Corporation, Cincinnati, Ohio

Model 158

Specifications

Model 158 is a seven tube superheterodyne designed for operation from A. C. electric circuits. The intermediate frequency used is 181.5 KC.

Tubes And Voltage Limits

The following are the voltages measured with the receiver in operating condition, but with no signal to the antenna circuit. Use a high resistance D. C. Voltmeter (1000 ohms per volt, or more) for all but filament voltages. In measuring filament or heater voltages use a low range A. C. meter. The voltage limits are + or — 10% of values given in the following table.

Line voltage—117.5 (235 for 220 volt receivers).

Plate voltage measured from plate contact to cathode contact.

Screen grid voltage measured from screen grid contact to cathode contact.

Suppressor grid voltage measured from suppressor grid contact to cathode contact.

Bias voltage measured from cathode contact to chassis.

Tube	Position	Voltages				
		Plate	Screen Grid	Supp. Grid	Bias	Fil.
-58	R. F. Amplifier	270	85	0	0	2.5
-57	Oscillating Detector	270	80	0	6.0	2.5
-58	I. F. Amplifier	275	80	0	4.0	2.5
-56	Detector	0				2.5
-56	A. F. Amplifier	40			1.6	2.5
-42	Output	245	250		22.0	6.3
-80	Rectifier	350				4.8

1	61-24995	ANTENNA COIL
2	62-24968	INTERSTAGE COIL
3	63-24996	OSCILLATOR COIL
4	C-26442B	TUNING CONDENSER
5	61-25444	1ST I.F. TRANSFORMER
6	61-25948	1ST. I.F. TUNING COND.
7		2ND I.F. TUNING COND.
8		2ND I.F. TUNING COND.
9	W-25008A	I.F. SECONDARY COND.
10	66-25444	2ND I.F. TRANSFORMER
11	W-21464	1 MEGOHM
12	W-26577	3 MEGOHM
13	W-21455	300,000 Ω
14	W-24814	7000 Ω
15	W-21237	60,000 Ω
16	W-23765	500,000 Ω
17	W-22514	750 Ω
18	W-23013	2000 Ω
19	W-23907	750 Ω
20	W-25970	15,000 Ω
21		10,000 Ω
22	W-25517A	.008 MFD.
23		.05 MFD.
24	W-25857B	8 MFD.
25		8 MFD.
26	W-25642A	8 MFD.
27		4 MFD.
28	W-27203	.02 MFD.
29	W-27203	.02 MFD.
30	W-26152A	.0001 MFD.
31		.0001 MFD.
32	W-25437	.0015 MFD.
33	W-27208	.02 MFD.
34	W-25666A	LEVEL CONT. 3 MEG.
35	W-25594A	TONE CONT. 80,000 Ω
36		SWITCH
37	G14-23559	60~ POWER TRANS.
38	G24-27456	-58 SOCKET
39	G23-27456	-57 SOCKET
40	G18-27456	-56 SOCKET
41	G25-27456	-42 SOCKET
42	G6-27456	-80 SOCKET
43	B-21491A	CORD & PLUG
44	LC-25518	312-4 SPEAKER
45	27948	312-3 SPEAKER
46	W-22221	2.5V. DIAL LAMP
47	61-27976	2.5 MMF. EYELET COND.
48	LW-20264	ANT.-GND. TERMINAL
49	G15-23559	25~ POWER TRANS.
50	G16-23559	220V. POWER TRANS.
51	W-27540	.0005 MFD
52	W-23765	500,000 Ω
53	W25537	.03 MFD.
54		.001 MFD.
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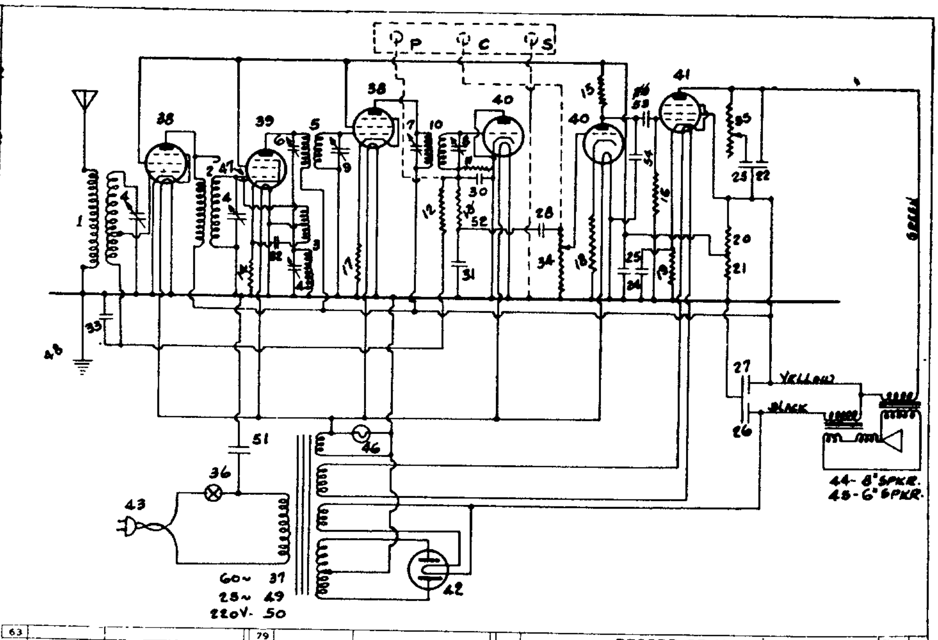

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	RECORD OF CHANGES	Change No.
A	ITEM 13 REPLACED BY ITEM 52 11-23-36	1261
B	ITEM 29 REPLACED BY ITEM 53 & 54	[illegible]

THE CROSLEY RADIO CORPORATION, CINCINNATI, OHIO

158 WIRING DIAGRAM

APPROVED CHKD DATE 11-11-36 SCALE DWG NO B-27965

Model 160

1	G7-24995	ANTENNA COIL
2	G2-25968	INTERSTAGE COIL
3	G14-24996	OSCILLATOR COIL
4	G5-24065	1ST I-F. TRANS.
5	G10-24065	2ND I-F. TRANS.
6	C-26442B	TUNING CONDENSER
7	G3-25948	I-F. TUNING COND.
8	W-27204	.02 MFD.
9		.02 MFD.
10	W-25438	.1 MFD.
11		.1 MFD.
12	W-25937	275 Ω
13	W-21964	165 Ω
14	W-23785	500,000 Ω
15	W-21454	1-MEGOHM
16	W-23013	2000 Ω
17	W-22514	750 Ω
18	W-21455	300,000 Ω
19	W-27540	.0005 MFD.
20		
21	G3-25445	COUPLING CHOKE
22	W-21454	1-MEGOHM
23	W-23785	500,000 Ω
24	W-26152	.00015 MFD.
25		.0001 MFD.
26	W-26578	5-MEGOHM
27	W-26577	3-MEGOHM
28	W-27203	.02 MFD.
29	W-28287A	Q LEVEL CONT. 5000 Ω
30	W-25666	AUDIO LEVEL CONT. 3-MEG
31	W-26577	3-MEGOHM
32	W-23403	150,000 Ω
33	W-25516	.25 MFD.
34		.25 MFD.
35	W-27120	8500 Ω
36		25,000 Ω
37	W-21237	60,000 Ω
38	W-21875	100,000 Ω
39	W-23142	.02 MFD.
40	W-23615	.05 MFD.
41	W-22873	220 Ω
42	W-21455	300,000 Ω
43	W-25857A	8 MFD. 25 V
44		8 MFD. 200 V
45		
46		
47	W-28340	8 MFD. 350 V
48		12 MFD. 475 V
49	W-25594A	TONE CONT. 80,000 Ω
50		LINE SWITCH
51	B-21491A	CABLE & PLUG
52	W-22221	2.5V. DIAL LAMP
53	W-20264	ANT.-GND. TERMINAL
54	G19-25669	POWER TRANS. 60~
55	27869	337.4M. SPEAKER
56	G24-27456	-58 SOCKET
57	G18-27456	-56 SOCKET
58		
59	G6-27456	-80 SOCKET
60	G20-25669	POWER TRANS. 25~
61	G21-25669	POWER TRANS. 220V.
62	W-21454	1-MEGOHM
63	W-28468	8 MFD. 350 V
64		12 MFD. 475 V
65	W-28471	8500 Ω
66		25,000 Ω
67	27870	337-5M. SPEAKER
68	G43-27456	2A5 SOCKET
69	W-28860	.008 MFD.
70		.15 MFD.
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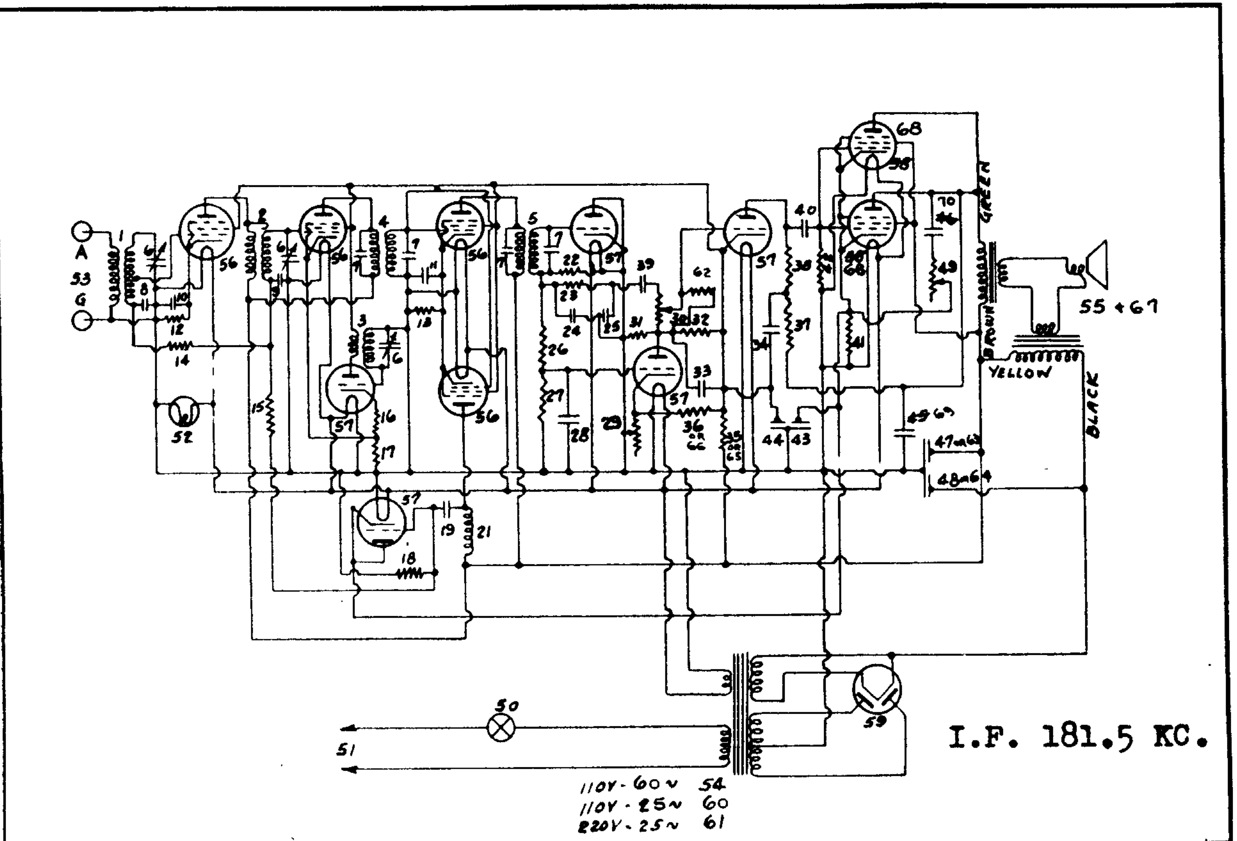

I.F. 181.5 KC.

	RECORD OF CHANGES	Change No
A	ITEM 62 ADDED 12-29-32 cew	3309
B	ITEMS 63 AND 64 ADDED 1-6-33 cew	3318
B	ITEMS 65 AND 66 ADDED 1-7-33 cew	3319
C	ITEM 58 REPLACED BY ITEM 68 2-8-33 cew	3353
D	ITEMS 45 & 46 REPLACED WITH ITEMS 69 & 70 2-20-33 cew	3362

THE CROSLEY RADIO CORPORATION, CINCINNATI, OHIO

160 WIRING DIAGRAM

12-15-32 Schaefer DWG NO B-28334

Model 167

1	G20-24995	ANTENNA COIL
2	G17-24996	OSCILLATOR COIL
3	L-27426	VARIABLE CONDENSER
4	G7-25444	1ST I.F. TRANS.
5	G2-25948	1ST I.F. TRANS. PRI. TUN. COND.
6	W-25008A	1ST I.F. SEC. TUN. COND.
7	W-27548	2ND I.F. TRANS. SEC. TUN. COND.
8	G7-25445	2ND I.F. TRANS.
9	W-25537A	0.0006 µf 400V.
10		0.03 µf 400V.
11	W-21455	300,000 Ω
12	W-23785	500,000 Ω
13	27610	335-3 SPEAKER
14	LW-20264	ANT-GND. TERM.
15	W-26573B	VOLUME CONTROL
16		LINE SWITCH
17	W-25438	0.1 µf 200V.
18		0.1 µf 200V.
19	W-25438	0.1 µf 200V.
20		0.1 µf 200V.
21	W-25937	275 Ω
22	~~W-20090~~	~~4500 Ω~~
23	~~W-27120~~	~~6,500 Ω~~
24		~~25,000 Ω~~
25	W-24784	0.25 µf 200V.
26	~~W-25517A~~	~~0.05 µf~~
27		~~0.008 µf~~
28	W-21453	40,000 Ω
29	W-26577	3 MEG.
30	W-23907	750 Ω
31	W-27488	8 µf 25V.
32		6 µf 800V.
33	W-23701B	7 µf 440V.
34	B-21491A	CORD & PLUG
35	G11-23559	POWER TRANS (60~)
36	W-4099A	6V. DIALLIGHT
37	G23-27456	-57 SOCKET
38	G24-27456	-58 SOCKET
39	G25-27456	-42 SOCKET
40	G6-27456	-80 SOCKET
41	~~W-27546~~	~~0.0006 µf~~
42	W-28913	WAVE CHANGE SWITCH
43	G12-23559	POWER TRANS. (25~)
44	G13-23559	POWER TRANS. (220V.)
45	W-29089	0.02 MFD. 400V.
46		0.016 MFD. 400V.
47	~~W-25970~~	~~10,000 Ω~~
48		~~15,000 Ω~~
49	W-29591A	.0005 MFD 400V.
50	W-27120	25,000 Ω
51		8,500 Ω
52	36137	3,500 Ω
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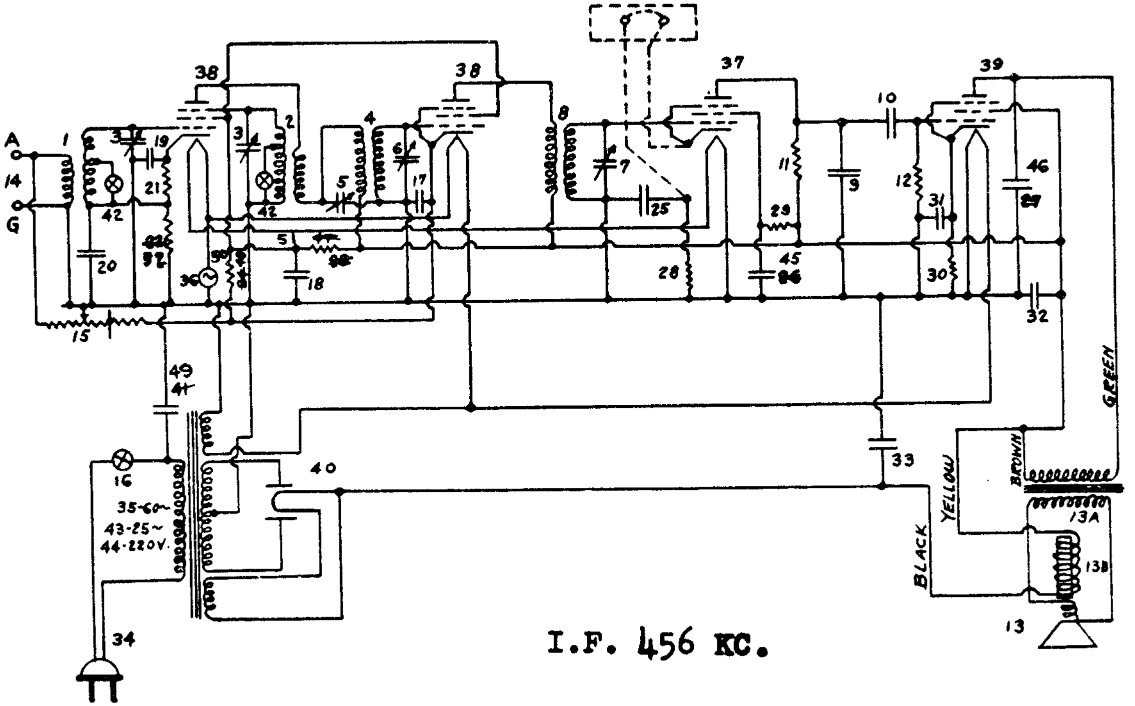

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	RECORD OF CHANGES		Change No
A	ITEMS 26 & 27 REPLACED WITH ITEMS 45 & 46	B	3395
B	ITEMS 15 & 16 WAS W-26573A 4-3-33 R.E.D.	B	3396
B	ITEMS 23 & 24 REPLACED WITH ITEMS 47 & 48 4-5-33 R.E.D.	B	3398
C	ITEM 41 REPLACED BY ITEM 49 5-15-33		3434
D	ITEM 22 REPLACED BY 52 ITEMS 47 & 48 REPLACED BY 50 & 51 6-22-33		3451

THE CROSLEY RADIO CORPORATION, CINCINNATI, OHIO

167 WIRING DIAGRAM

APPROVED — DATE — Schaefer — DWG NO B-28932

The Crosley Radio Corporation, Cincinnati, Ohio

Model 168

Specifications

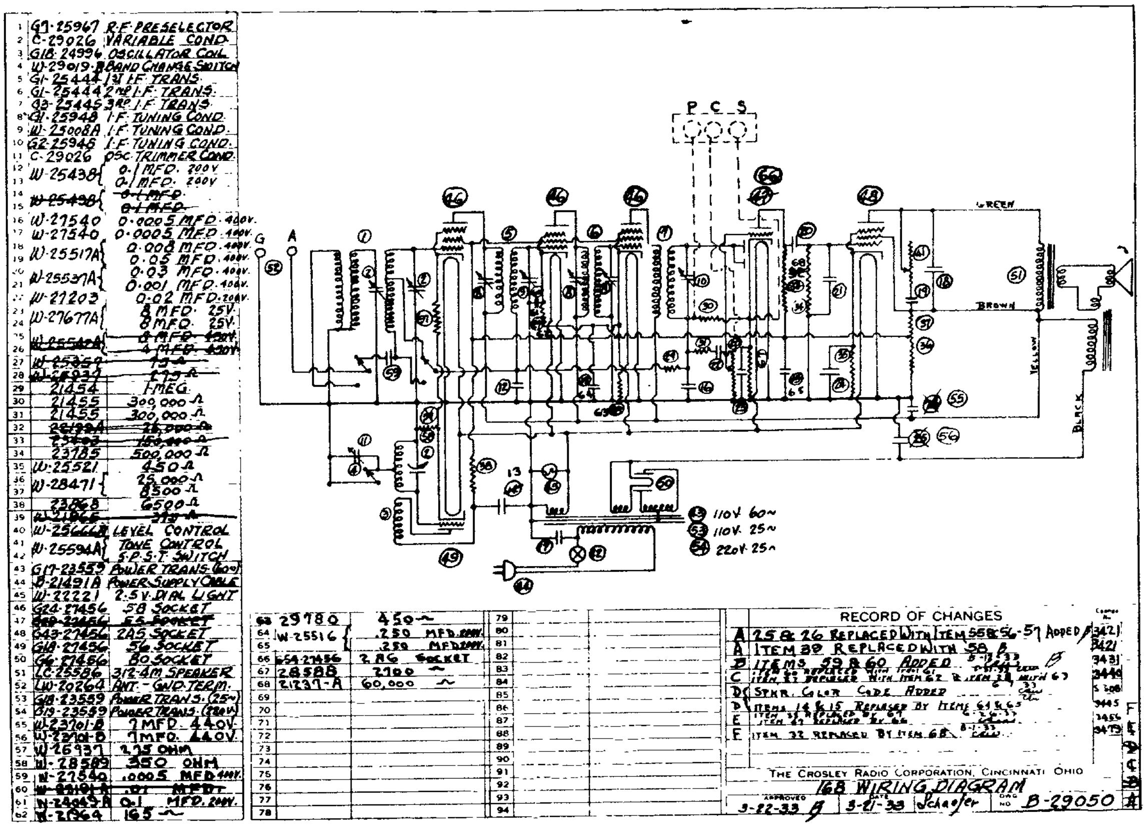
Model 168 is a seven tube dual band superheterodyne designed for operation from A.C. electric circuits. The intermediate frequency is 181.5 Kc.

Tubes and Voltage Limits

The following are the tubes and voltages measured with the receiver in operating condition but with no signal to the antenna circuit. Line voltage should be 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament, are measured from tube contact to chassis with a 500 volt D.C. voltmeter (1000 ohms per volt). Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
56	Oscillator	66		6.5		2.5
58	Modulator	270	122	8.0	8.0	2.5
58	I. F. Amplifier	270	122	8.5	8.5	2.5
58	I. F. Amplifier	270	122	7.0	7.0	2.5
2A6	Detector and A. F. Amplifier	231		2.0		2.5
2A5	Output	257	270	18.0		2.5
80	Rectifier	380				4.9

Voltage limits are plus or minus 10% of values given.



1	G1-25967	R-F PRESELECTOR
2	C-29026	VARIABLE COND.
3	G18-24996	OSCILLATOR COIL
4	W-29019-B	BAND CHANGE SWITCH
5	G1-25444	1ST I.F. TRANS.
6	G1-25444	2ND I.F. TRANS.
7	G3-25445	3RD I.F. TRANS.
8	G1-25948	I.F. TUNING COND.
9	W-25008A	I.F. TUNING COND.
10	G2-25946	I.F. TUNING COND.
11	C-29026	OSC. TRIMMER COND.
12	W-25438	0.1 MFD. 200V
13		0.1 MFD. 200V
14	~~W-25438~~	~~0.1 MFD.~~
15		~~0.1 MFD.~~
16	W-27540	0.0005 MFD. 400V.
17	W-27540	0.0005 MFD. 400V.
18	W-25517A	0.008 MFD. 400V.
19		0.05 MFD. 400V.
20	W-25537A	0.03 MFD. 400V.
21		0.001 MFD. 400V.
22	W-27203	0.02 MFD. 200V.
23	W-27677A	8 MFD. 25V.
24		8 MFD. 25V.
25	~~W-25542A~~	~~8 MFD. 450V.~~
26		~~4 MFD. 450V.~~
27	~~W-25359~~	~~75 Ω~~
28	~~W-25933~~	~~175 Ω~~
29	21454	1 MEG.
30	21455	300,000 Ω
31	21455	300,000 Ω
32	~~29199A~~	~~25,000 Ω~~
33	~~23403~~	~~150,000 Ω~~
34	23185	500,000 Ω
35	W-25521	450 Ω
36	W-28471	25,000 Ω
37		8500 Ω
38	23868	6500 Ω
39	~~W-21865~~	~~315 Ω~~
40	W-25666B	LEVEL CONTROL
41	W-25594A	TONE CONTROL
42		S.P.S.T. SWITCH
43	G17-23559	POWER TRANS. (60~)
44	B-21491A	POWER SUPPLY CABLE
45	W-22221	2.5 V. DIAL LIGHT
46	G24-27456	58 SOCKET
47	~~G20-27456~~	~~55 SOCKET~~
48	G43-27456	2A5 SOCKET
49	G18-27456	56 SOCKET
50	G6-27456	80 SOCKET
51	LC-25586	312-4M SPEAKER
52	LW-20264	ANT. - GND. TERM.
53	G18-23559	POWER TRANS. (25~)
54	G19-23559	POWER TRANS. (220V)
55	W-23701-B	7 MFD. 440V.
56	W-23701-B	7 MFD. 440V.
57	W-26937	225 OHM
58	W-28589	350 OHM
59	W-27540	.0005 MFD. 400V.
60	~~W-23101-A~~	~~.01 MFD.~~
61	W-24049-A	0.1 MFD. 200V.
62	W-21964	165 Ω
63	29780	450 Ω
64	W-25516	.250 MFD. 200V.
65		.250 MFD. 200V.
66	G54-27456	2A6 SOCKET
67	28588	2100 Ω
68	21237-A	60,000 Ω
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RECORD OF CHANGES

		Change No.
A	25 & 26 REPLACED WITH ITEM 55 & 56 - 57 ADDED	3421
A	ITEM 39 REPLACED WITH 58	3421
B	ITEMS 59 & 60 ADDED 5-17-33	3431
C	ITEM 60 REPLACED WITH ITEM 61 ITEM 33 REPLACED WITH ITEM 62 & ITEM 28 WITH 63	3440
D	SPKR. COLOR CODE ADDED	5306
D	ITEMS 14 & 15 REPLACED BY ITEMS 64 & 65	3445
E	ITEM 33 REPLACED BY 67 ITEM 47 REPLACED BY 66 6-26-33	3456
F	ITEM 32 REPLACED BY ITEM 68 8-1-33	3479

THE CROSLEY RADIO CORPORATION, CINCINNATI OHIO

168 WIRING DIAGRAM

APPROVED 3-22-33 | DATE 3-21-33 | Schaefer | DWG NO. B-29050

The Crosley Radio Corporation, Cincinnati, Ohio

Model 169

Specifications

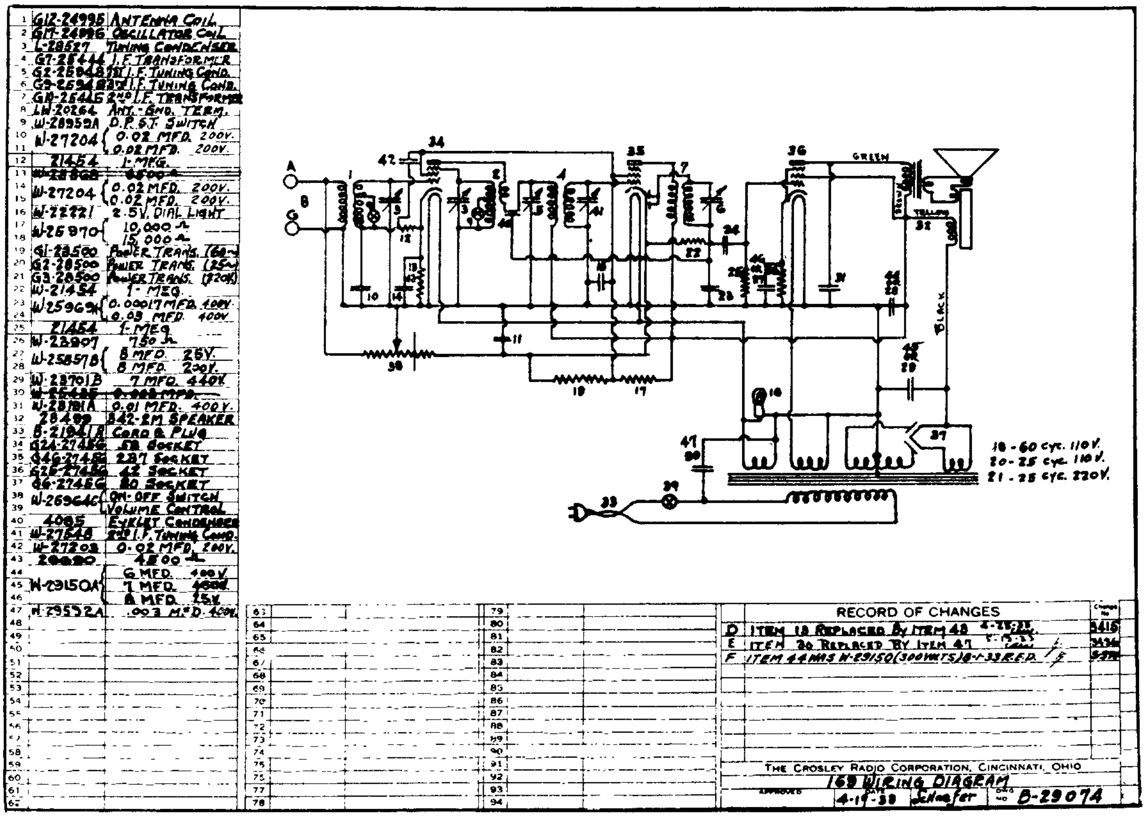
Model 169 is a four tube dual band superheterodyne designed for operation from A.C. electric circuits. The intermediate frequency is 456 Kc.

Tubes and Voltage Limits

The following are the tubes and voltages measured with the receiver in operating condition but with no signal to the antenna circuit, with a line voltage of 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament, are measured with a 500 volt D.C. voltmeter (1000 ohms per volt) from tube contact to chassis. Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
58	Oscillator-Modulator	188	88	28	0	2.5
2B7	I. F. Amplifier and Detector	188	88	2		2.5
42	Output	178	188	14.5		2.5
80	Rectifier	322				4.9

Voltage limits are plus or minus 10% of values given.



1	G12-24995	ANTENNA COIL
2	GM-24996	OSCILLATOR COIL
3	L-28527	TUNING CONDENSER
4	G7-25444	I.F. TRANSFORMER
5	G2-25948	1ST I.F. TUNING COND.
6	G3-25948	2ND I.F. TUNING COND.
7	G8-25445	2ND I.F. TRANSFORMER
8	LW-20264	ANT.-GND. TERM.
9	W-28959A	D.P.S.T. SWITCH
10	W-27204	0.02 MFD. 200V.
11		0.02 MFD. 200V.
12	21454	1-MEG.
13	~~[illegible]~~	~~[illegible]~~
14	W-27204	0.02 MFD. 200V.
15		0.02 MFD. 200V.
16	W-22221	2.5V. DIAL LIGHT
17	W-25970	10,000 Ω
18		15,000 Ω
19	G1-28500	POWER TRANS. (60~)
20	G2-28500	POWER TRANS. (25~)
21	G3-28500	POWER TRANS. (220V)
22	W-21454	1-MEG.
23	W-25969K	0.00017 MFD. 400V.
24		0.05 MFD. 400V
25	21454	1-MEG.
26	W-22907	750 Ω
27	W-25857B	8 MFD. 25V.
28		8 MFD. 200V.
29	W-28701B	7 MFD. 440V.
30	~~[illegible]~~	~~[illegible]~~
31	W-28181A	0.01 MFD. 400V.
32	28499	542-EM SPEAKER
33	B-21941A	CORD & PLUG
34	G24-27486	58 SOCKET
35	G46-27486	2B7 SOCKET
36	G25-27486	42 SOCKET
37	G6-27486	80 SOCKET
38	W-26964C	ON-OFF SWITCH
39		VOLUME CONTROL
40	4065	EYELET CONDENSER
41	W-27646	2ND I.F. TUNING COND.
42	W-27203	0.02 MFD. 200V.
43	20020	4800 Ω
44	W-29150A	6 MFD. 400V.
45		7 MFD. 400V.
46		8 MFD. 25V.
47	W-29552A	.003 MFD. 400V.

RECORD OF CHANGES

		Change No.
D	ITEM 18 REPLACED BY ITEM 43 4-28-33	3415
E	ITEM 30 REPLACED BY ITEM 47 5-15-33	3436
F	ITEM 44 WAS W-29150 (300 WTS) 8-1-33 R.E.D.	[illegible]

THE CROSLEY RADIO CORPORATION, CINCINNATI, OHIO

169 WIRING DIAGRAM

APPROVED DATE 4-19-33 Schaefer DWG NO B-29074

The Crosley Radio Corporation, Cincinnati, Ohio

Model 170

Specifications

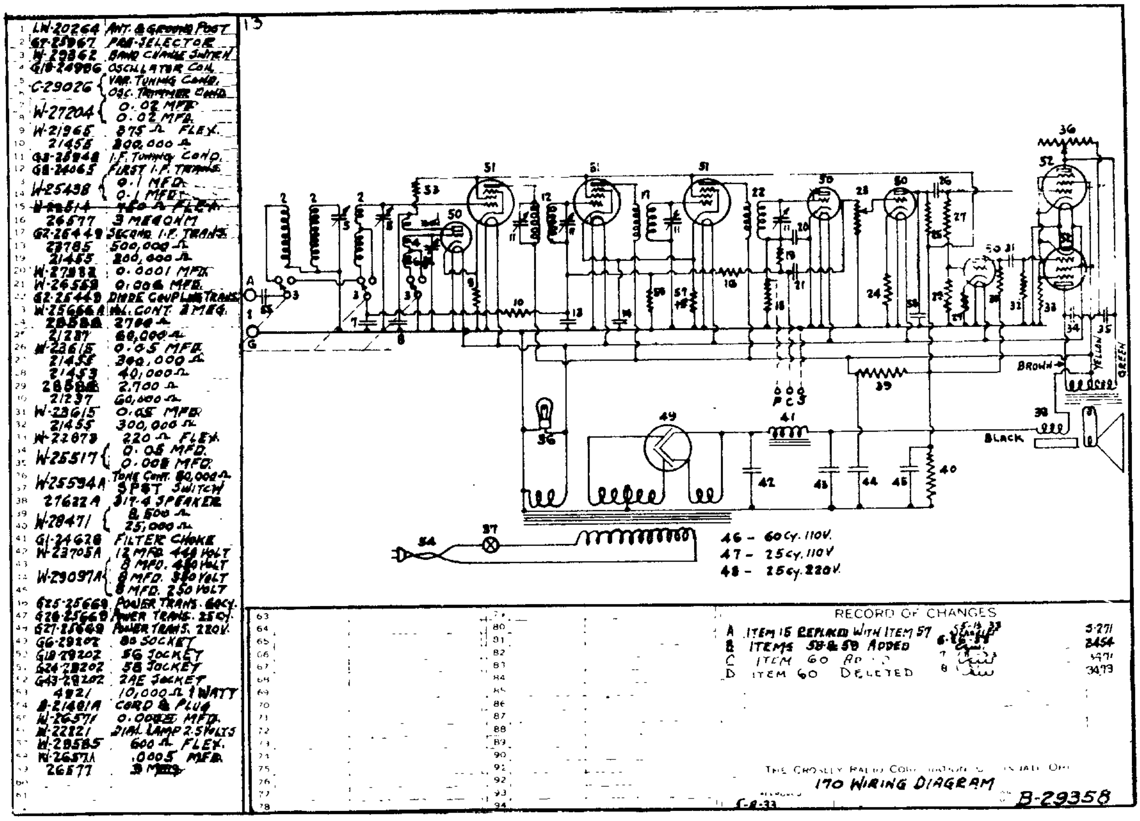
Model 170 is a ten tube dual band superheterodyne designed for operation from A.C. electric circuits. The intermediate frequency used is 181.5 Kc.

Tubes and Voltage Limits

The following are the tubes and voltages measured with the receiver in operating condition but with no signal to the antenna circuit, and with a line voltage of 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament, are measured with a 500 volt D.C. voltmeter (1000 ohms per volt) from tube contact to chassis. Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
58	Modulator	276	120	6.0	6.0	2.5
56	Oscillator	50		6.0		2.5
58	I. F. Amplifier	276	120	8.0	8.0	2.5
58	I. F. Amplifier	276	120	8.0	8.0	2.5
56	Detector	0				
56	Phase Shifter	55		0		2.5
56	A. F. Amplifier	56		2.0		2.5
2-2A5	Output	269		3.0		2.5
80	Rectifier	355	276	18.0		2.5 4.9

Voltage limits are plus or minus 10% of values given.



1	LW-20264	ANT. & GROUND POST
2	GT-25967	PRE-SELECTOR
3	W-29862	BAND CHANGE SWITCH
4	G18-24986	OSCILLATOR COIL
5	C-29026	VAR. TUNING COND.
6		OSC. TRIMMER COND.
7	W-27204	0.02 MFD.
8		0.02 MFD.
9	W-21965	875 Ω FLEX.
10	21456	200,000 Ω
11	G8-25948	I.F. TUNING COND.
12	G8-24065	FIRST I.F. TRANS.
13	W-25438	0.1 MFD.
14		0.1 MFD.
15	~~[illegible]~~	~~[illegible] Ω FLEX.~~
16	26577	3 MEGOHM
17	G2-26449	SECOND I.F. TRANS.
18	23785	500,000 Ω
19	21455	200,000 Ω
20	W-27982	0.0001 MFD.
21	W-26569	0.006 MFD.
22	G2-25448	DIODE COUPLING TRANS.
23	W-25666A	VOL. CONT. 2 MEG.
24	28588	2700 Ω
25	21287	60,000 Ω
26	W-23615	0.05 MFD.
27	21455	300,000 Ω
28	21453	40,000 Ω
29	28588	2,700 Ω
30	21237	60,000 Ω
31	W-23615	0.05 MFD.
32	21455	300,000 Ω
33	W-22878	220 Ω FLEX.
34	W-25517	0.05 MFD.
35		0.008 MFD.
36	W-25594A	TONE CONT. 80,000 Ω
37		SPST SWITCH
38	27622A	317-4 SPEAKER
39	W-28471	8,500 Ω
40		25,000 Ω
41	G1-24628	FILTER CHOKE
42	W-23705A	12 MFD. 440 VOLT
43	W-29097A	8 MFD. 440 VOLT
44		8 MFD. 350 VOLT
45		8 MFD. 250 VOLT
46	G25-25669	POWER TRANS. 60 CY.
47	G26-25669	POWER TRANS. 25 CY.
48	G27-25669	POWER TRANS. 220 V.
49	G6-29202	80 SOCKET
50	G18-29202	56 SOCKET
51	G24-29202	58 SOCKET
52	G43-29202	2A5 SOCKET
53	4921	10,000 Ω 1 WATT
54	B-21481A	CORD & PLUG
55	W-26571	0.0005 MFD.
56	W-22821	DIAL LAMP 2.5 VOLTS
57	W-28585	600 Ω FLEX.
58	W-26571A	.0005 MFD.
59	26577	3 MEG.
60		
61		

46 - 60 cy. 110 V.
47 - 25 cy. 110 V
48 - 25 cy. 220 V.

RECORD OF CHANGES

A	ITEM 15 REPLACED WITH ITEM 57	5-15-33	3271
B	ITEMS 58 & 59 ADDED	6-26-33	3454
C	ITEM 60 ADDED	7 [illegible]	3471
D	ITEM 60 DELETED	8 [illegible]	3473

THE CROSLEY RADIO CORPORATION, CINCINNATI, OHIO

170 WIRING DIAGRAM

6-8-33

B-29358

The Crosley Radio Corporation, Cincinnati, Ohio

Model 171

Specifications

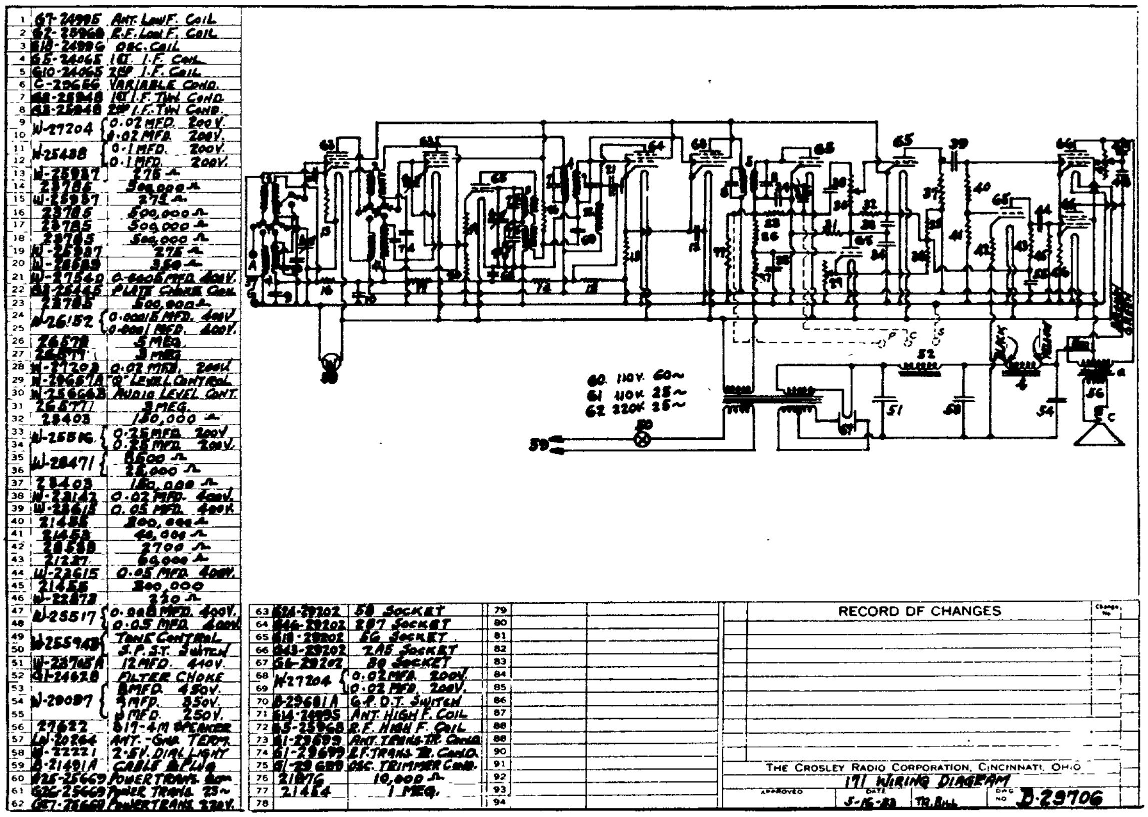
Model 171 is a twelve tube dual band superheterodyne designed for operation from A.C. electric circuits. The intermediate frequency is 181.5 Kc.

Voltages and Tube Limits

The following are the tubes and voltages measured with the receiver in operating condition but with no signal to the antenna circuit, and with a line voltage of 117.5 volts (235 volts for 220 volt receivers). All voltages, except filament are measured with a 500 volt D.C. voltmeter (1000 ohms per volt) from tube contact to chassis. Filament voltages are measured with a low range A.C. voltmeter.

Tube	Position	Plate	Screen Grid	Cathode	Suppressor Grid	Filament
58	R. F. Amplifier	267	115	3.0	3.0	2.5
56	Oscillator	60		7.0		2.5
58	Modulator	267	115	5.5	5.5	2.5
58	I. F. Amplifier	267	115	4.5	4.5	2.5
2B7	A. V. C. Tube	267	115	4.5	4.5	2.5
56	QAVC Tube	70		0-20.0*		2.5
56	Detector	0		0		2.5
56	Phase Shifter	58		2.5		2.5
56	A. F. Amplifier	170		115		2.5
2-2A5	Output	260	267	17.5		2.5
80	Rectifier	355				4.9

Voltage limits are plus or minus 10% of values given.
***Voltage depends on position of "Q" control.**



1	G1-24995	ANT. LOW F. COIL
2	G2-25960	R.F. LOW F. COIL
3	[illegible]-24996	OSC. COIL
4	G5-24065	1ST I.F. COIL
5	G10-24065	2ND I.F. COIL
6	C-20666	VARIABLE COND.
7	[illegible]-25848	1ST I.F. TUN. COND.
8	[illegible]-25848	2ND I.F. TUN. COND.
9	W-27204	0.02 MFD. 200V.
10		0.02 MFD. 200V.
11	W-25488	0.1 MFD. 200V.
12		0.1 MFD. 200V.
13	W-25987	275 Ω
14	23786	500,000 Ω
15	W-25987	275 Ω
16	23786	500,000 Ω
17	23785	500,000 Ω
18	23785	500,000 Ω
19	W-25987	275 Ω
20	W-26689	350 Ω
21	W-27540	0.0006 MFD. 400V.
22	[illegible]-25445	PLATE CHOKE COIL
23	23785	500,000 Ω
24	W-26152	0.00015 MFD. 400V.
25		0.0001 MFD. 400V.
26	26578	5 MEG.
27	[illegible]	3 MEG.
28	W-27202	0.02 MFD. 200V.
29	W-29665/A	"Q" LEVEL CONTROL
30	W-25666B	AUDIO LEVEL CONT.
31	26577	3 MEG.
32	28403	150,000 Ω
33	W-25516	0.25 MFD. 200V.
34		0.25 MFD. 200V.
35	W-28471	6500 Ω
36		25,000 Ω
37	28403	150,000 Ω
38	W-23142	0.02 MFD. 400V.
39	W-23613	0.05 MFD. 400V.
40	21455	300,000 Ω
41	21452	40,000 Ω
42	28588	2700 Ω
43	21237	60,000 Ω
44	W-22615	0.05 MFD. 400V.
45	21455	300,000
46	W-22873	350 Ω
47	W-25517	0.006 MFD. 400V.
48		0.05 MFD. 400V.
49	W-25594B	TONE CONTROL
50		S.P.S.T. SWITCH
51	W-23705A	12 MFD. 440V.
52	G1-24628	FILTER CHOKE
53	W-29087	8 MFD. 450V.
54		5 MFD. 350V.
55		5 MFD. 250V.
56	27622	G17-4M SPEAKER
57	W-20264	ANT.-GND. TERM.
58	W-22221	2.5V. DIAL LIGHT
59	B-21491A	CABLE & PLUG
60	G25-25669	POWER TRANS. 60~
61	G26-25669	POWER TRANS. 25~
62	G27-25669	POWER TRANS. 220V.
63	G24-29202	58 SOCKET
64	G46-29202	2B7 SOCKET
65	G18-29202	56 SOCKET
66	G43-29202	2A5 SOCKET
67	G4-29202	80 SOCKET
68	W27204	0.02 MFD. 200V.
69		0.02 MFD. 200V.
70	B-29601A	G.P.D.T. SWITCH
71	G14-24995	ANT. HIGH F. COIL
72	G5-25968	R.F. HIGH F. COIL
73	G1-29699	ANT. TRANS. TR. COND.
74	G1-29699	R.F. TRANS. TR. COND.
75	G1-29680	OSC. TRIMMER COND.
76	21876	10,000 Ω
77	21454	1 MEG.
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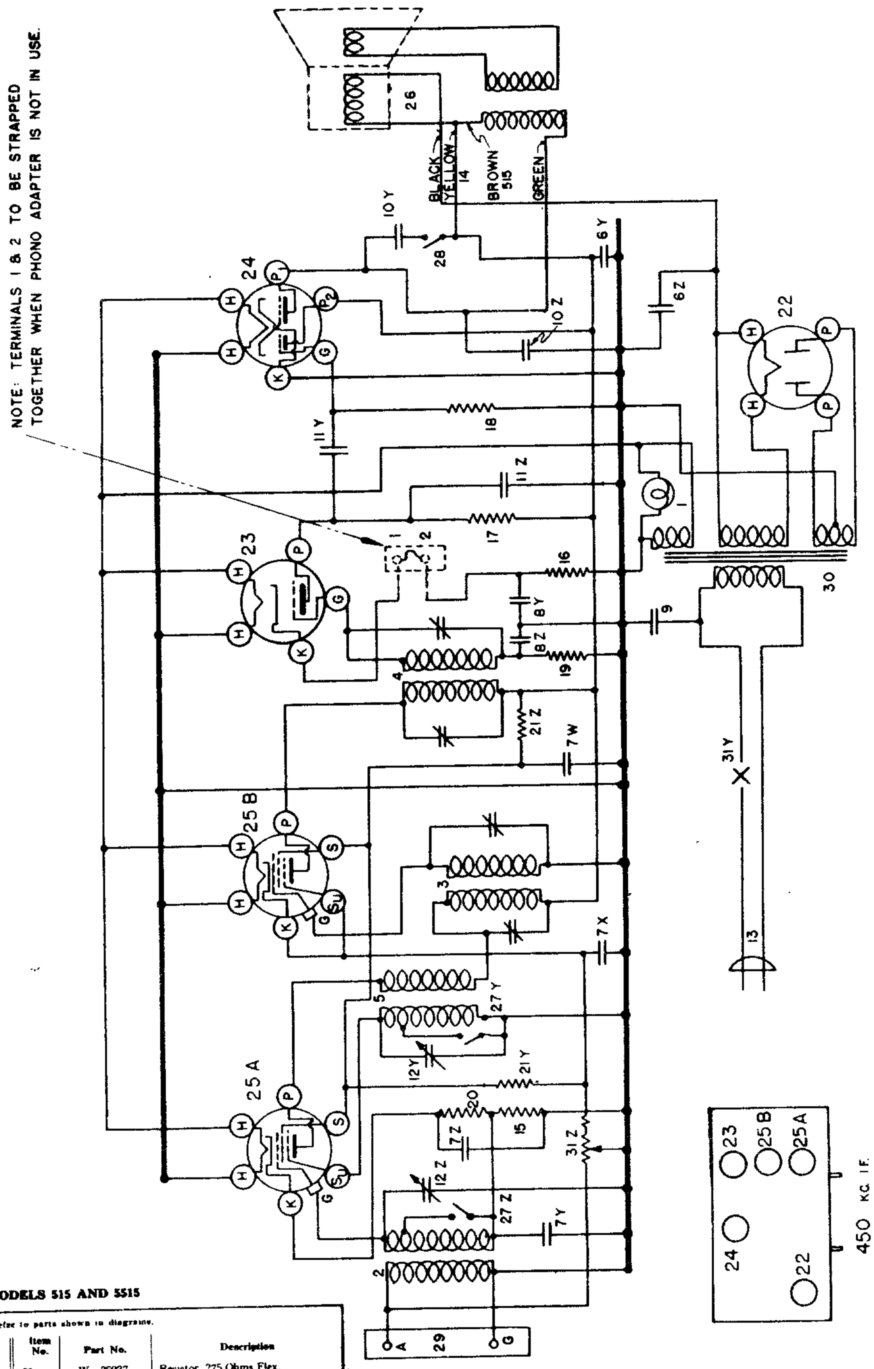
THE CROSLEY RADIO CORPORATION, CINCINNATI, OHIO
171 WIRING DIAGRAM
DATE 5-16-33 TR. BILL
DRG NO D-29706

Crosley Radio

I.F. 450 KC.

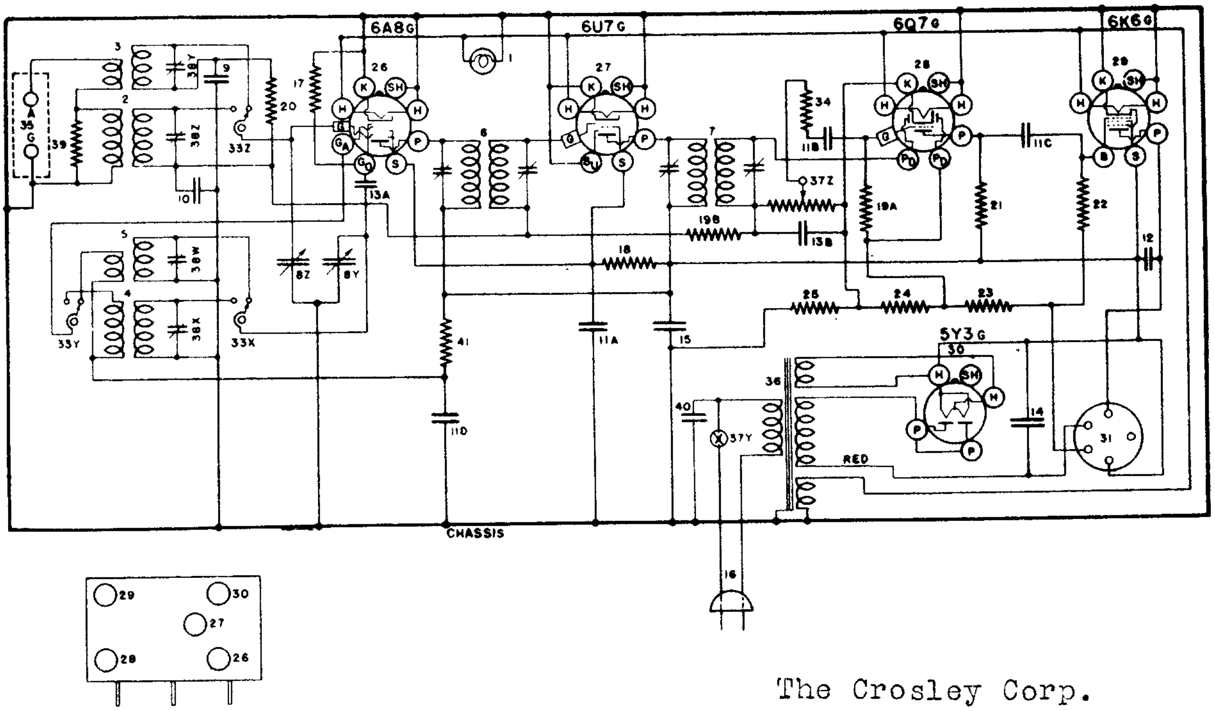


WIRING DIAGRAM OF MODELS 515 AND 5515

PARTS LIST—MODELS 515 AND 5515

Figures in first column refer to parts shown in diagrams.

Item No.	Part No.	Description
1	G4 —27134	Dial Light Socket Assembly.
2	G42--32000	Coil Ant.
3	G48--32004	1st I. F. Trans.
4	G49—32004	2nd. I. F. Trans.
5	G47--32002	Osc. Coil.
6Z	W --36719	Condenser, 8 Mfd., 450 Volts.
6Y		Condenser, 6 Mfd., 450 Volt.
7Z	W --28623	Condenser, 0.02 Mfd. 200 Volt
7Y		Condenser, 0.02 Mfd 200 Volt.
7X	W --28623	Condenser, 0.02 Mfd. 200 Volt.
7W		Condenser, 0.02 Mfd. 200 Volt.
8Z	W —28622	Condenser, 0.1 Mfd. 200 Volt.
8Y		Condenser, 0.1 Mfd. 200 Volt.
9	W —30805	Condenser, 0.01 Mfd. 400 Volt.
10Z	W — 35011	Condenser, 0.006 Mfd. 400 Volt.
10Y		Condenser, 0.03 Mfd. 400 Volt.
11Z	W —25537A	Condenser, 0.001 Mfd. 400 Volt.
11Y		Condenser, 0.03 Mfd. 400 Volt.
12Z 12Y	G14--33001	Variable Tuning Condenser Gang.
	--36148	Dial Assembly complete.
13	B —33906A	Cord --Power Supply.
14	G3 -35696	Speaker Cable (5515 only)
15	-31094	Resistor, 4,500 Ohms.
16	--21237A	Resistor, 60,000 Ohms.
17	21455	Resistor, 300,000 Ohms
18	-23785	Resistor, 500,000 Ohms.
19	--21454	Resistor, 1 Megohm.
20	W—25937	Resistor, 275 Ohms Flex.
21Z	W --35963	Resistor, 8,500 Ohms.
21Y		Resistor, 25 000 Ohms
22	G6 —28807	Socket, 80
23	G80—28807	Socket, 76.
24	G90—28807	Socket, 6B5.
25A	G75—28807	Socket, 6D6.
25B	G75—28807	Socket, 6D6
	W —35772	Tube Shield, Half.
	W —35773	Tube Shield Cap.
	W —35774	Tube Shield Base
26	—219-BL9	Speaker
27Z 27Y	W —35753A	Band Change Switch.
28	W —36184A	Tone Control Switch.
29	G1 —26719	Ant Gnd. Terminal.
30	G5 —28500	Power Transformer, 60 Cy . 110 V
	G6 —28500	Power Transformer 25 Cy . 110 V
	G7 —28500	Power Transformer, 25 Cy., 220 V.
31Z	—37343	Volume Control.
31Y		On-Off Switch
	B —35917	Escutcheon.
	--37158	Dial Glass
	—37156	Dial Pointer.
	-37157	Pointer Screw.
	W —31585B	Knob (2) large
	W —36355	Knob (2) small.



MODELS. 517 & 547 455 K.C I.F.

The Crosley Corp.

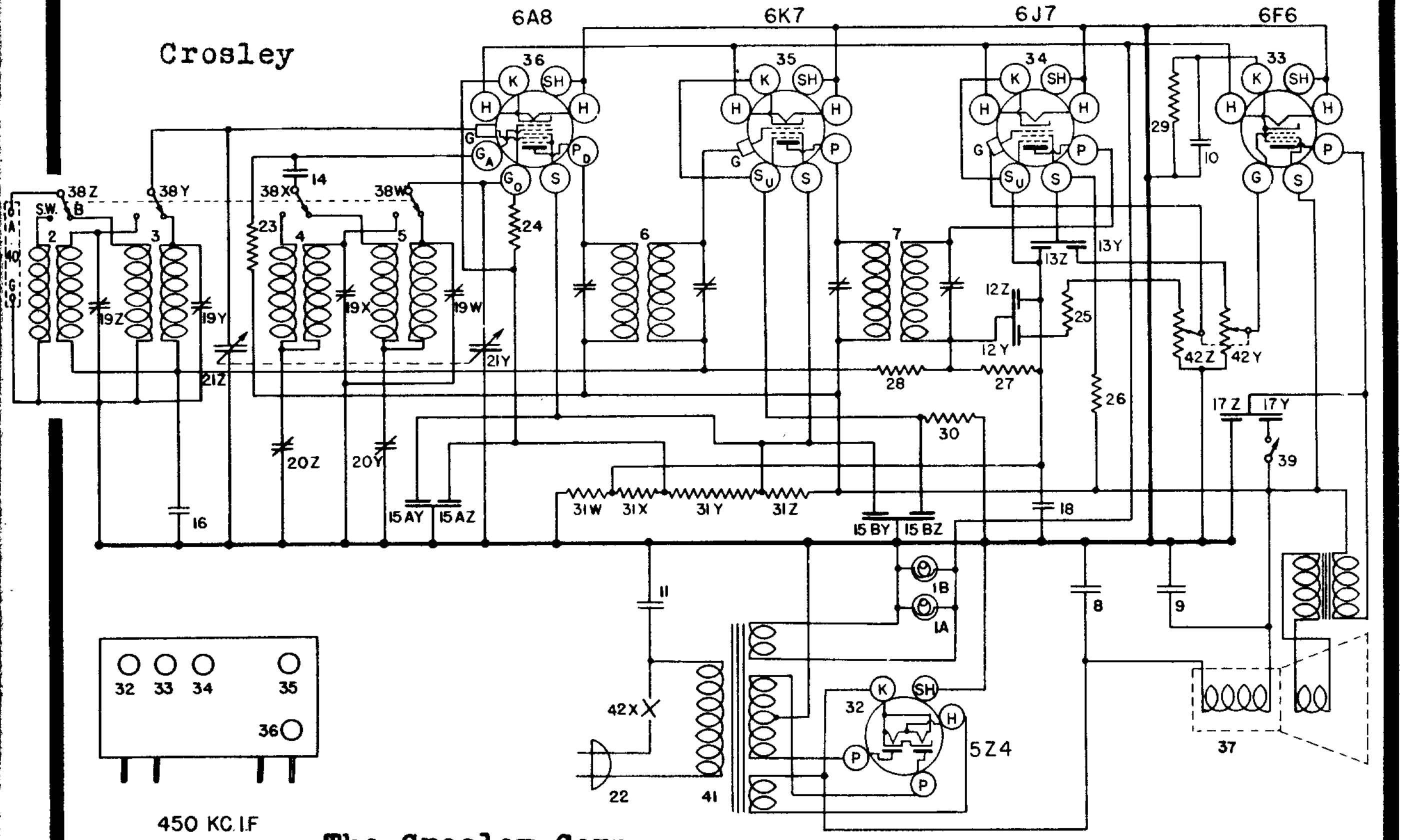
WIRING DIAGRAM—MODEL 517 AND 547

PARTS LIST — MODEL 517 AND 547

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Description	
1	W —43567	Bulb—Dial Light	
	W —43568	Light Bracket	
2	G132—32000	Ant. Coil, B. C.	
3	G133—32000	Ant. Coil, H. F.	
1	G132—32002	Osc. Coil, B. C.	
5	G133—32002	Osc. Coil, H. F.	
6	G136—32004	1st I-F Assembly	
7	G137—32004	2nd I-F Assembly	
8	G33 —33001	2 Sect. Var. Tuning Cond.(547 only)	
8	G31 —33001	2 Sect. Var. Tuning Cond.(517 only)	
	B —43551	Dial Face (517 only)	
	B —43729	Dial Face (Tel. Tun. Dial only)	
	W —43694	Disc—Center of Dial	
	W —43693	Mask Ring (Dial)	
	W —43778	Dial Support Ring	
	B —43544	Dial Glass Support	
	G1 —43564	Pullay Assembly	Dial Drive
	W —43548	Drive Shaft	
	W —43549	Retaining Ring	
	W —43550	Pointer (517 only)	
	W —43542A	Drive Shaft Bracket	
	W —43561	Drive Cable Spring	
	—41582	Drive Cable	
9	G12 —34002	Condenser .0005 Mf. H.F. Osc. Ser.	
10	—36541	Condenser .02 Mf. 160 V.	
11ABCD	W —28621	Condenser .02 Mf. 200 V.	
12	W —34647	Condenser .01 Mf. 400 V.	
13AB	G1 —34002	Condenser .00025 Mf. Molded	
14	W —41081	Condenser 16 Mf. 250 V.	
15	W —43450	Condenser 16 Mf. 200 V.	
16	B —33906A	Power Cord and Plug	
17	—21237A	Resistor 60,000 Ohm ¼W.	
18	—24814	Resistor 7,000 Ohm ¼W.	
19AB	—36688	Resistor 3 Megohm ¼W.	
20	—21455	Resistor 300,000 Ohm ¼W.	
21	—35601	Resistor 300,000 Ohm ¼W.	
22	—23785	Resistor 500,000 Ohm ¼W.	
23	W —28589	Resistor 350 Ohm ½W. Flex.	
24	W —33012A	Resistor 40 Ohm ½W. Flex.	
25	W —24537	Resistor 60 Ohm ½W. Flex.	
26	G156—36400	Socket Type 6A8	
27	G171—36400	Socket Type 6U7	
28	G160—36400	Socket Type 6Q7	
29	G172—36400	Socket Type 6K6	
30	G173—36400	Socket Type 5Y3	
	W —40911	Tube Shield	
31	G103—28807	Socket—Speaker	
32	257BP11"B"	Speaker, Spec. No. 51-A-5 (Cab. 6K & 7KA)	
	—42927	Cone for 257BP11 "B" Speaker	
	—41473	O. P. Trans. for 257BP11 "B" Spkr.	
	—43539	Cardb'd Ring for 257BP11 "B" Spk.	
	257BP18 "B"	Speaker, Spec. No. 51-A-8 (Cab. 7H & 7HA)	
	—42927	Cone for 257BP18 "B" Speaker	
	—43986	O. P. Trans. for 257BP18 "B" Spkr.	
	—43539	Cardb'd Ring for 257BP18 "B" Spk.	
	462CP11 "M"	Spkr., Spec. No. 1-D-971 (Cab.6FF)	
	—40405	Cone for 462CP11 "M" Speaker	
	—43989	O. P. Trans. for 462CP11 "M" Spkr.	
	—43988	Field Coil for 462CP11 "M" Spkr.	
	464BP15 "M"	Spkr., Spec. No. 1-D-1017(Cab. 7M)	
	—43993	Cone for 464BP15 "M" Speaker	
	—43994	Field Coil for 464BP15 "M" Spkr.	
	—43995	O. P. Trans. for 464BP15 "M" Spkr.	
33	W —43448	Switch Band Selector	
34	—36761	Resistor 40,000 Ohm ¼W.	
35	G1 —26719	Ant. and Ground Terminal Board	
36	—43479	Power Trans. 110 V. 60 Cy.	
	—43480	Power Trans. 110 V. 25 Cy.	
	—43481	Power Trans. 220 V. 25 Cy.	
37Z	—43449	Volume Control, 1 Megohm	
37Y		Line Switch	
38Z	W —41247A	Trimmer Cond. B. C. Ant.	
38Y		Trimmer Cond. H. F. Ant.	
38X		Trimmer Cond. B. C. Osc.	
38W		Trimmer Cond. H. F. Osc.	
39	—22196	Resistor 20,000 Ohm ¼W	
40	W —30805	Condenser .01 Mf. 400 V.	
41	—30137	Resistor 3,500 Ohm ¼W.	
	G1 —43724	Tel. Tun. Escutcheon	
	W —43769	Pointer—Cabinet (547 only)	
	W —43554	Knob (1 required) Small	
	W —43625	Knob (2 required) Large	
	W —43553	Rubber Mtg. Foot	
	W —43552	Clamp—Speaker Plug	
	W —43726	Celluloid Disc (547 only)	

Crosley



The Crosley Corp.

WIRING DIAGRAMS—MODELS 555 AND 5555

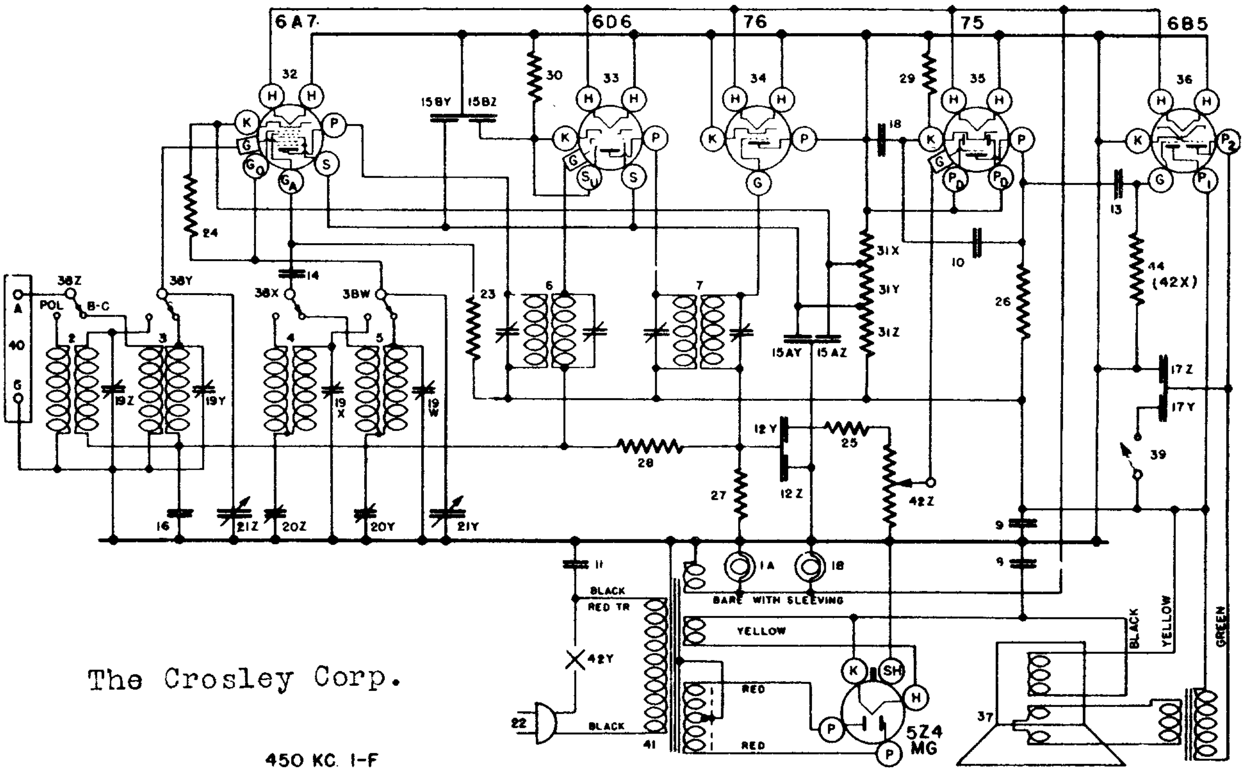
Item No.	Part No.	Description
1A	G6 —27134	Dial Light Assm.
1B	G6 —27134	Dial Light Assm.
2	G82 —32000	Ant. Coil, S. W. B.
3	G81 —32000	Ant. Coil, B. C. B.
4	G65 —32002	Osc. Coil, S. W. B.
5	G66 —32002	Osc. Coil, B. C. B.
6	G71 —32004	1st I. F. Assm.
7	G72 —32004	2nd I. F. Assm.
8	W —36055	Condenser, 35. Mfd. 400 Volt
9	W —36057	Condenser, 40. Mfd. 300 V.
10	W —36931	Condenser, 12 Mfd. 25 V.
11	W —30805	Condenser, 0.01 Mfd. 400 V.
12Z	W —30322A	Condenser, 0.00017 Mfd. 200 V.
12Y		Condenser, 0.006 Mfd. 200 V.
13Z	W —25537A	Condenser, 0.001 Mfd. 400 V.
13Y		Condenser, 0.03 Mfd. 400 V.
14	W —23191A	Condenser, 0.01 Mfd. 400 V.
15AZ	W —28623 .	Condenser, 0.02 Mfd. 200 V.
15AY		Condenser, 0.02 Mfd. 200 V.
15BZ	W —28623	Condenser, 0.02 Mfd. 200 V.
15BY		Condenser, 0.02 Mfd. 200 V.
16	W —27216	Condenser, 0.05 Mfd. 200 V.
17Z	W —35011	Condenser, 0.006 Mfd. 400 V.
17Y		Condenser, 0.03 Mfd. 400 V.
18	W —36541	Condenser, 0.02 Mfd. 160 V.
19Z 19Y 19V 19W	W —37241A	4 Section Trimmer Cond.
20Z	G29 —33006	S. W. Osc. Series Padder
20Y		B. C. Osc. Series Padder
21Z 21Y	G17 —33001	Var. Tuning Cond. Gang
	—37353C	Dial Assm. Complete
	—37158	Dial Glass
	—37156	Dial Pointer
	—37157	Pointer Screw
	—37354	Dial Face only
22	B —33906A	A. C. Cord & Plug
23	—5370A	Resistor, 20,000 Ohm
24	—21237	Resistor, 60,000 Ohm
25	—21875	Resistor, 100,000 Ohm
26	—21455	Resistor, 300,000 Ohm
27	—33344	Resistor, 400,000 Ohm
28	—37245	Resistor, 1.5 Megohm
29	W —25291	Resistor, 500 Ohm 1½ W. (Flex)
30	W —28106	Resistor, 500 Ohm ½ W. (Flex)
31Z	W —37246A	Resistor, 10,000 Ohm Candohm
31Y		Resistor, 25,000 Ohm Candohm
31X		Resistor, 185. Ohm Candohm
31W		Resistor, 185. Ohm Candohm
32	G154—36400	Socket, 5Z4
33	G153—36400	Socket, 6F6
34	G157—36400	Socket, 6J7
35	G151—36400	Socket, 6K7
36	G156—36400	Socket, 6A8
37	331—CL—9	Speaker, (555)
	432—CJ—3M	Speaker, (5555) Console
	G3 —35696	Speaker Cable (5555)
38W To 38Z	—37247	Band Change Switch
39	W —36184A	Tone Control Switch
40	G1 —26719	Ant. & Grd. Terminal
41	G12 —28500	Power Trans. 60 Cy. 110 V.
	G13 —28500	Power Trans. 25 Cy. 110 V.
	G14 —28500	Power Trans. 25 Cy. 220 V.
42Z	—37395	Volume Control A. F. Grid
42Y		Volume Control Output Grid
42X		On-Off Switch

PARTS LIST—MODELS 666 and 5666

Figures in first column refer to parts in Diagrams.

Item No.	Part No.	Name	
1	W —37922	6-8 V. Bulb, Dial Light	
	G3 —37965	Socket Assy., Dial Light	
2	G82 —32000	Coil Antenna—2350—7000 Kc.	
3	G81 —32000	Coil Antenna—540—1725 Kc.	
4	G 65—32002	Coil—2350—7000 Kc., Osc.	
5	G 66—32002	Coil— 540—1725 Kc., Osc.	
6	G118—32004	Coil—Assy., 1st I-F.	
7	G 72—32004	Coil—Assy., 2nd I-F.	
8	W —36055	Cond. 35 Mf. 400 V.	
9	W —36057	Cond. 40 Mf. 300V.	
10	W —30270	Cond. .001 Mf. 400V.	
11	W —30805	Cond. .01 Mf. 400V.	
12Z	W —30322-A	Cond. .00017 Mf.	
12Y		Cond. .006 Mf.	
13	W —23615	Cond. .05 Mf. 400V.	
14	W —23191-A	Cond. .01 Mf. 400V.	
15 AZ	W —28623	Cond. .02 Mf. 400V.	
15 AY		Cond. .02 Mf. 400V.	
15 BZ	W —28623	Cond. .02 Mf. 400V.	
15 BY		Cond. .02 Mf. 400V.	
16	W —27216	Cond. .05 Mf. 200V.	
17 Z	W —31062	Cond 004 Mf. 400V.	
17 Y		Cond. .05 Mf. 400V.	
18	W —37732	Cond. .3 Mf. 160V.	
19	W —37241	Cond. 4 Section Trimmer	
20	G 31—33006	Cond. Series Trimmers	
21	G 17—33001	Cond. Var. Tuning	
	W —41736	Drive Unit, 8Pt. Disc. Assy.	Model 666 —Only
	W —41897	Dial-Calibrated Glass	
	W —41737	Mtg. Brkt. Dial Glass R.H.	
	W —41738	Mtg. Brkt., Dial Glass, L.H.	
	W —41739	Drive Unit	Model 5666 Only
	B —42617	Dial (Calibrated)	
	MG-14—41980	DialGlass, Mtg. Brkt. R.H.	
	W —40798	DialGlass, Mtg. Brkt., L.H.	
	W —40797-A	DialGlass Retaining Brkt.	
	W —42629	Pointer—Dial	
	W —40795	Shaft—Pointer	
	W —40909	Washer (Spring) Shaft	
	W —41611	Ring-Shaft, Retaining	
	B —42374-A	Mask (Metal) Dial	
22	B —33906-A	Cord & Plug—Power	
23	— 5370-A	Resistor, 20,000 Ohm 1W	
24	—35928	Resistor, 60,000 Ohm ¼W	
25	—21875	Resistor, 100,000 Ohm, ¼W	
26	—35929-C	Resistor, 150,000 Ohm, ¼W	
27	—33344	Resistor, 400,000 Ohm, ¼W	
28	—37245-C	Resistor, 1.5 Megohm ¼W	
29	—36316	Resistor, 2,700 Ohm, ¼W	
30	W —28106	Resistor, 500 Ohm, ¼W. Flex.	
31Z	W — 37246	Resistor, 1,000 Ohm	Candohm
31Y		Resistor, 2,000 Ohm	
31X		Resistor, 185-185 Ohm	
32	G47 —28807	Socket—Type 6A7	
33	G75 —28807	Socket—Type 6D6	
34	G80 —28807	Socket—Type 76	
35	G41 —28807	Socket—Type 75	
36	G90 —28807	Socket—Type 6B5	
	W —27981	Base—Tube Shield	
	W —40911	Shield—Tube	
37	244—BL—9	Speaker, "B" Spec. 50A-2	
	—42928	Cone Assy., For above Speaker	
	—41473	Output Trans., For above Speaker	
	632—CJ—3	Speaker, "M" Spec. 1-D-610	
	—42879	Cone Assy., For above Speaker	
	—42880	Field Coil, For above Speaker	
	—42881	Output Trans., For above Speaker	
38	—37247	Switch, Band Sel.	
39	W—36184-A	Switch, Tone Con.	
40	G1 —26719	Terminal Board, Ant. & Grid	
41	—41978	Transformer, 110V.—60 Cy. Power	
42Z	—37395	Volume Control (3 Meg.)	1st A·F Grid
42Y		Line Switch	
42X		Volume Control (1 Meg.)	Output Grid
43	NONE		
44	—35601	Resistor, 300 000 Ohm ¼ W. Output Grid to Grd.*	
	B —40590	Escutcheon, 666)	
	W —42345	Escutcheon, (5666)	
	D —28	Escutcheon Mtg. Screws	
	W —37339	Knob, (2) V.C.&S.S.	
	W —37341	Knob, (2) T. C. & B. S. W	
	—36297	Volume Control, 3 Meg.*	
	AG	Cabinet Model 666	
	MA	Cabinet Model 5666	

*May be used in place of Dual Volume Control.

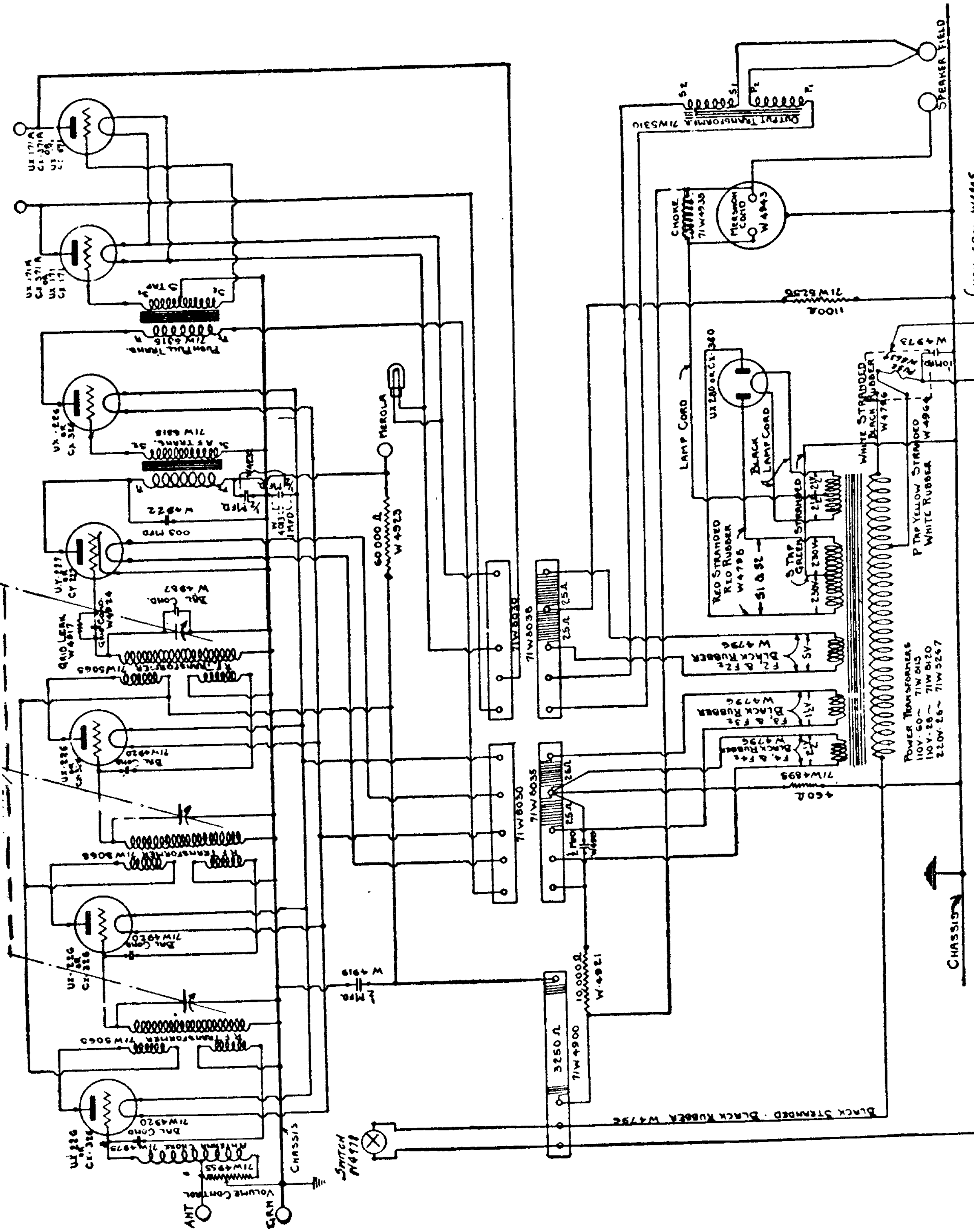


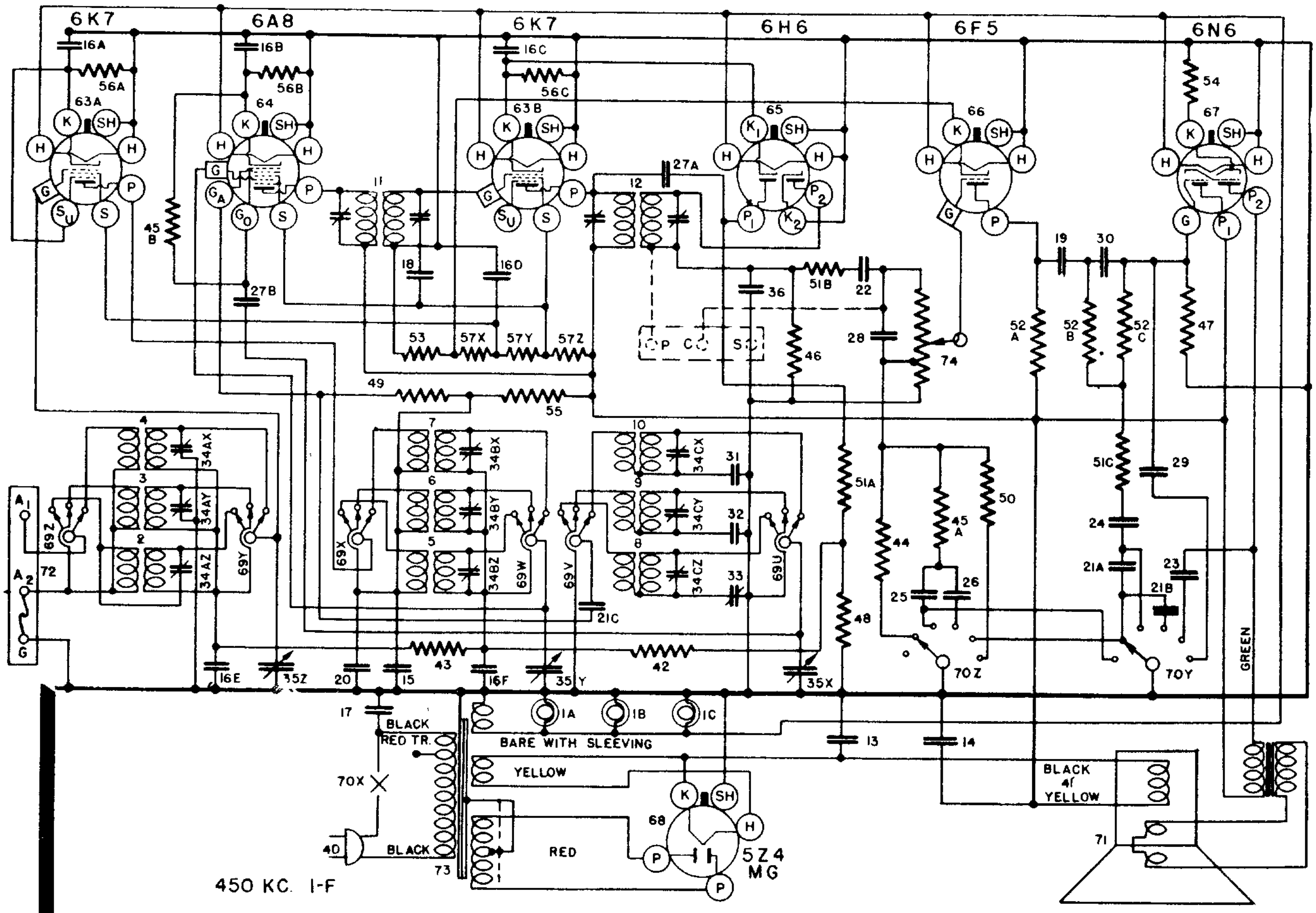
The Crosley Corp.

450 KC. I-F

WIRING DIAGRAM—MODELS 666 AND 5666

Crosley Model 706


UX 171A CX 371A or UY 171
UX 226 or CX 326
UY 227 CY 327
Push Pull Trans. 71W 6316
R.F. Transformer 71W5068
Grid Leak W4917
Bal. Cond. W4957
.003 MFD
W4922
60000 Ω W4923
Merola
71W8038
71W8030
71W8035
10,000 Ω W4921
3250 Ω 71W4900
Switch W4978
Antenna Choke 71W4975
Volume Control 71W4955
ANT.
GRN.
CHASSIS
Output Transformer 71W5310
Speaker Field
Choke 71W4938
Mershon Cond. W4943
1100 Ω 71W5256
UX 280 or CX 380
Lamp Cord
Black Lamp Cord
Red Stranded Red Rubber W4796
S1 & S2
5 Tap Green Stranded
230V
F2 & F2 Black Rubber W4796
F3 & F3 Black Rubber W4796
F4 & F4 Black Rubber W4796
460 Ω 71W4895
White Stranded Black Rubber W4796
P Tap Yellow Stranded White Rubber W4964
Power Transformers 110V. 60~ 71W 5125 110V. 25~ 71W 5120 220V. 25~ 71W 5267
Fuse Panel
W4973
110V. 60~ W4905 110V. 25~ W4903 220V. 25~ 71W5264
CHASSIS
Black Stranded Black Rubber W4796



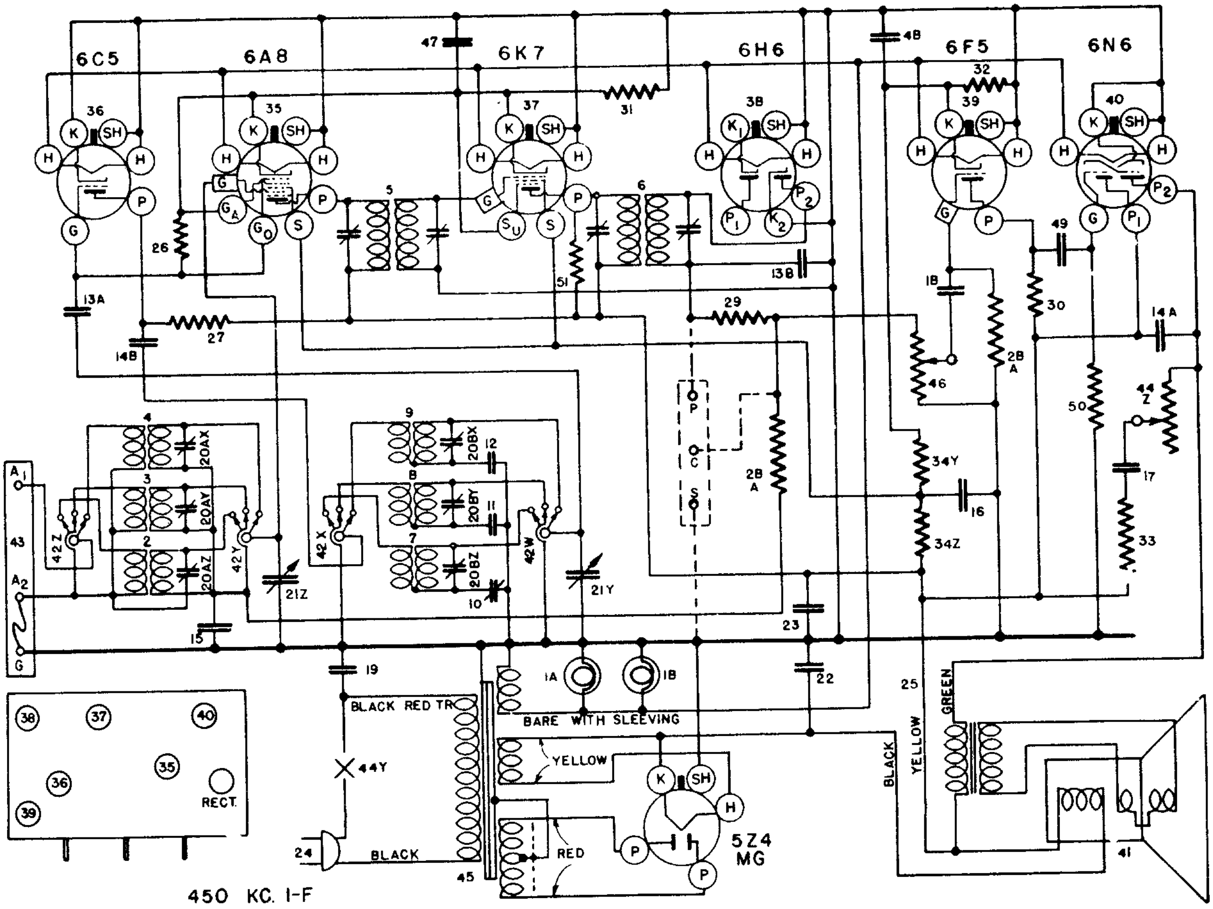
WIRING DIAGRAM—MODEL 726

The Crosley Corp.

PARTS LIST—MODEL 726

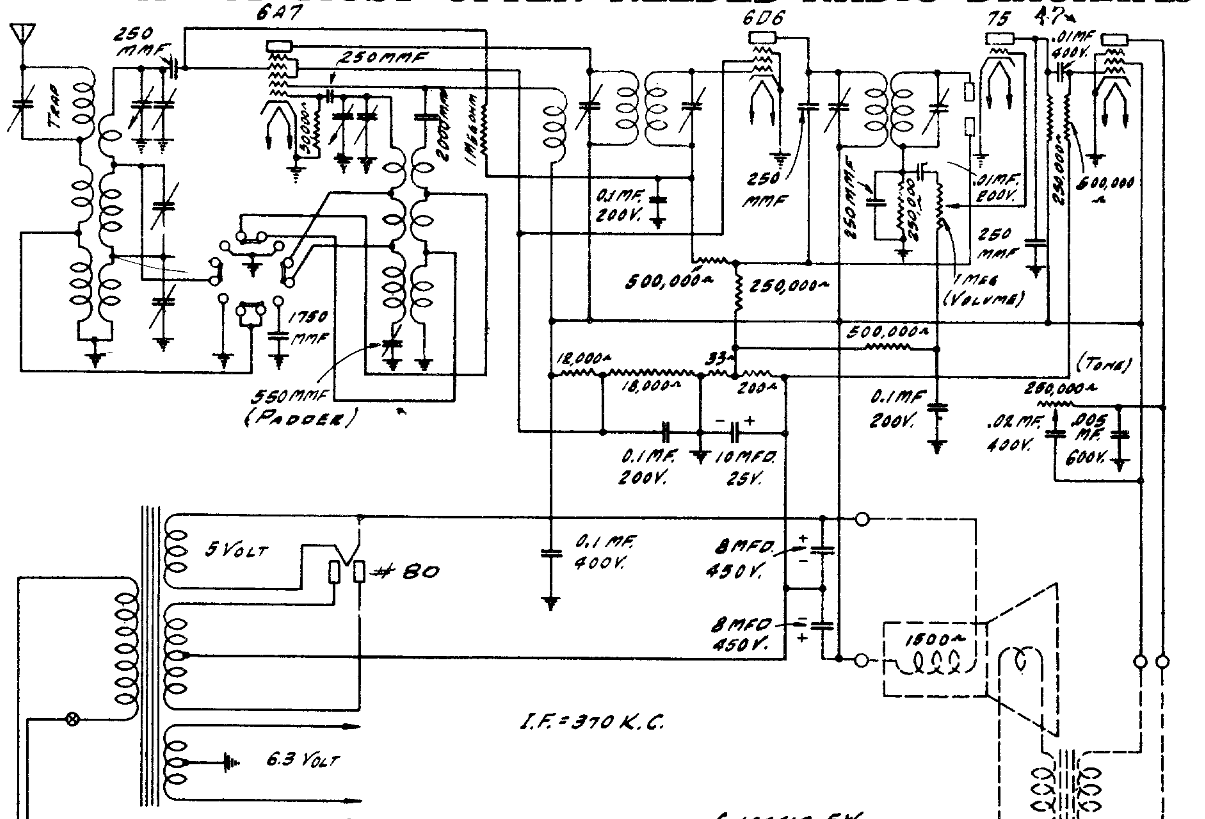
Figures in first column refer to parts in Diagrams

Item No.	Part No.	Description
1ABC	W —37922	Dial Light
	G3 —37965	Socket Assy. Dial Light
2	G110—32000	Coil Ant. 540-1800 Kc.
3	G111 —32000	Coil Ant. 1800-6000 Kc.
4	G112—32000	Coil Ant. 6-18 Mc.
5	G76 —32001	Coil R. F. 540-1800 Kc.
6	G89 —32001	Coil R. F. 1800-6000 Kc.
7	G90 —32001	Coil R. F. 6.-18 Mc.
8	G115—32002	Coil Osc. 590-1800 Kc.
9	G121 —32002	CoilOsc. 1800 6000 Kc.
10	G122—32002	Coil Osc. 6.-18 Mc.
11	G121—32001	1st. IF Assy.
12	G120—32004	2nd IF Assy.
13	W —36055	Condenser, 35Mf. 400V.
14	W —36057	Condenser, 40Mf. 300V
15	W —41081	Condenser 16Mf. 250V.
16A TO 16F	W —36541 W —36541	Condenser, 02Mf. 160V Condenser 02Mf. 160V.
17	W 30805	Condenser, 01Mf. 400V
18	W —35936	Condenser, 06Mf. 200V.
19	W —32780B	Condenser, 05Mf. 400V
20	W —32378	Condenser, 01Mf. 400V
21A	W 35139	Condenser, 004Mf. 400V
21B	W 35139	Condenser 004Mf. 400V
21C	W 35139	Condenser, 004Mf. 400V.
22	W 28621	Condenser, 02Mf. 200V.
23	W 23615	Condenser, 05Mf. 400V
24	W 30323	Condenser, 01Mf. 200V
25	W 28619	Condenser, 006Mf. 200V
26	W 25435	Condenser, 003Mf. 400V.
27A	G2 34002	Condenser, 0001Mf. (Mica)
27B	G2 34002	Condenser 0001Mf. (Mica)
28	G8 34002	Condenser, 00001Mf. (Mica)
29	G3 34002	Condenser, 0005Mf. (Mica)
30	G6 34002	Condenser, 000025Mf. (Mica)
31	G20 34000	Condenser, 4910Mmf. (Mica)
32	G7 34000	Condenser, 1450Mmf. (Mica)
33	40769	Condenser, B. C. Osc. Series Trim
34	W 35951	Condenser, 3 Section Trimmer
35	G52 33002	Condenser, 3 Gang Var. Tuning
	MG33 42255	Dial Drive Assy.
	C 42491	Dial Glass (Calibrated)
	-42300	Drive Unit
	42597	Dial Mask (Cardboard)
	W 42180	Dial Hand Pointer
	41114	Dial Hand, Time Log
	W 40486	Pointer Mtg. Screw
36	G1 34002	Condenser, 00025 Mf. (Mica)
37	W 30270	Condenser 001 Mf. 400V
40	B —33906A	Power Cord & Plug
41	G3 35696	Cable, Speaker
42	37245	Resistor, Meg. Ohm ¼ W.
43	35600	Resistor, 100,000 Ohm ¼ W.
44	—36319	Resistor, 75,000 Ohm ¼ W.
45A	—35928	Resistor, 60,000 Ohm ¼ W.
45B	—35928	Resistor, 60,000 Ohm. ¼ W.
46	—36321	Resistor, 400,000 Ohm. ¼ W.
47	—38623	Resistor 750,000 Ohm ¼ W
48	—36322	Resistor, 500,000 Ohm. ¼ W.
49	—37377	Resistor, 20,000 Ohm 1 W
50	—35929	Resistor, 150,000 Ohm ¼ W
51A	—35601	Resistor, 300,000 Ohm ¼ W
51B	—35601	Resistor, 300,000 Ohm ¼ W
51C	—35601	Resistor, 300,000 Ohm ¼ W
52A	—35930	Resistor, 200,000 Ohm ¼ W.
52B	—35930	Resistor, 200,000 Ohm. ¼ W.
52C	—35930	Resistor, 200,000 Ohm ¼ W
53	W —30127	Resistor, 450 Ohm. ½ W. Flex
54	W —23012A	Resistor, 40 Ohm ¾ W. Flex.
55	—6706	Resistor, 3500 Ohm 1 W
56A	W —28589	Resistor, 350 Ohm ½ W. Flex.
56B	W —28589	Resistor, 350 Ohm. ½ W. Flex.
56C	W —28589	Resistor, 350 Ohm. ½ W. Flex
57Z		Resistor, 16,500 Ohm.
57Y	W —37781	Resistor, 4 000 Ohm. Cand Ohm.
57X		Resistor 18,500 Ohm.
63A	G151 - 36400	Socket Type 6K7
63B	G151 - 36400	Socket Type 6K7
64	G156 - 36400	Socket Type 6A8
65	G155 —36400	Socket Type 6H6
66	G158—36400	Socket Type 6F5
67	G165 —36400	Socket Type 6N6
68	G154 —36400	Socket Type 5Z4
69	C —40910A	Band Selector Switch
70Z		Fidelity Switch
70Y	B —42387C	Fidelity Switch
70X		Line Switch
71	—645CJ3	Speaker "M" Spec. 1D640
	—42883	Cone Assy.
	40406	Field Coil For Above Speaker
	—42885	Output Trans.
72	G27 —26719	Ant. & Gnd. Terminal Assy.
73	—42260	Power Trans. 60 Cy. 110 V.
	42261	Power Trans. 25 Cy. 110 V.
74	—42501	Volume Control 3 Meg
		Misc. Parts
	C —42045	Escutcheon
	B —42043	Escutcheon Rubber
	D — 30	Screws - Escutcheon Mtg.
	C -42044	Lens—Escutcheon
	W —40230P	Emblem
	W 32620	Nut—Emblem Mtg.
	W 35117	Rubber Mtg. Foot
	W 37339	Knob (2 Req.)
	W 40192B	Knob, B. S. Sw. (1 Req.)
	W 42490	Knob, S. S. (1 Req.)
	6-NG	Cabinet

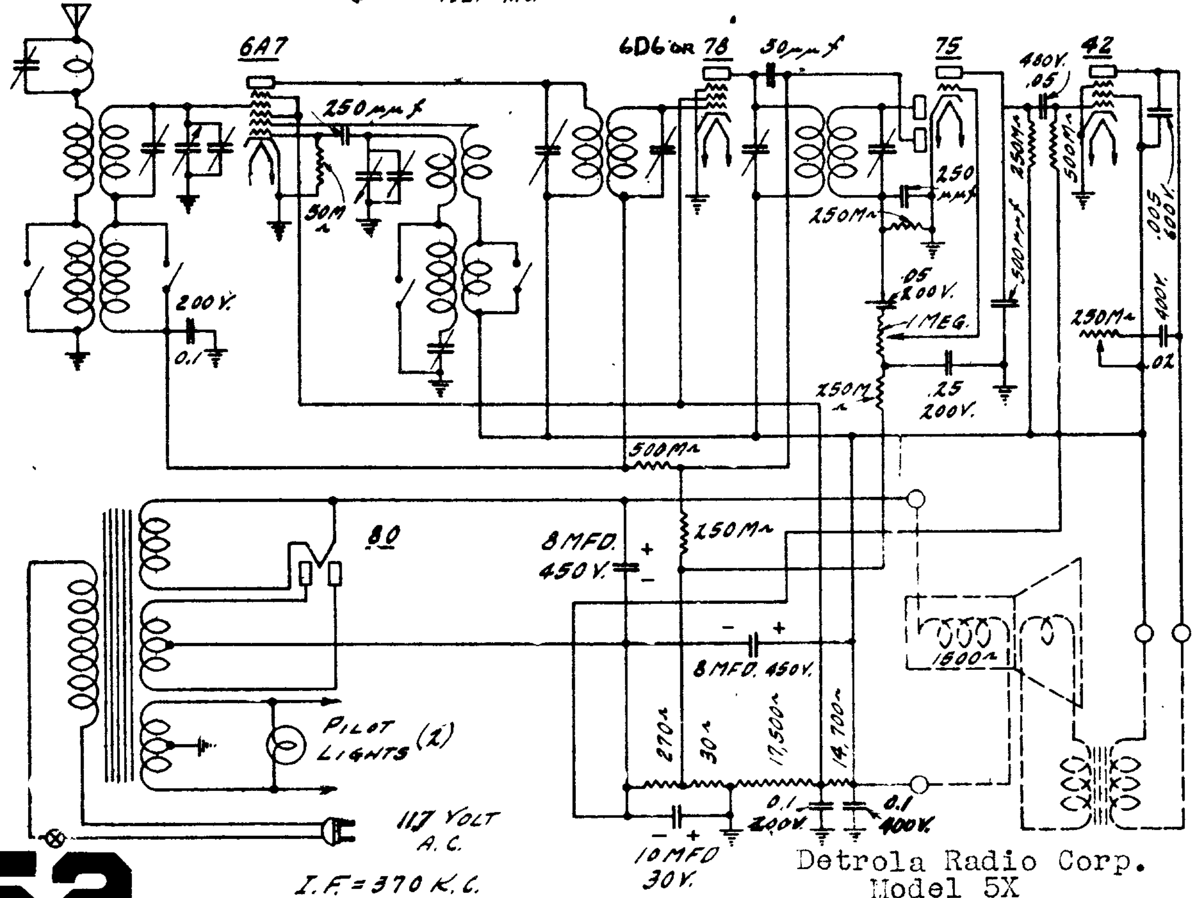


WIRING DIAGRAM—MODEL 716

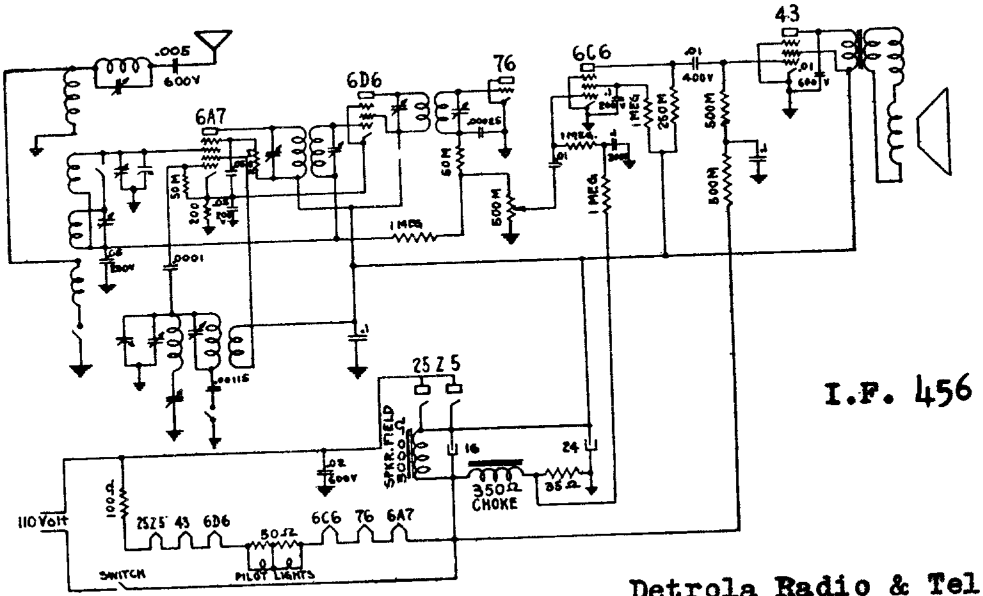
Item No.	Part No.	Name
-AB	W —37922	Bulb 6-8V., Dial Light
	G3 —37965	Socket Assy., Dial Light
2	G120 —32000	Coil, Ant. (540-1800 Kc.)
3	G119 —32000	Coil Ant. (1800 6000 Kc.)
4	G121 —32000	Coil, Ant. (5800-18000 Kc.)
5	G122 —32004	Coil Assy. 1st I-F (450Kc.)
6	G123 —32004	Coil Assy. 2nd I-F (450Kc.)
7	G112 —32002	Coil. Osc. (510-1800 Kc.)
8	G111 —32002	Coil. Osc. (1800-6000 Kc.)
9	G123 —32002	Coil Os . (5800-18000 Kc.)
10	—40769	Cond. 400-500 M.n .
11	G7 —34007	Cond. 1750 Mmf.
12	G 8 —34007	Cond. 4350 Mmf.
13A	G 2 —34002	Cond., .0001Mf.(Molded)
13B	G 2 —34002	Cond., .0001 Mf.(Molded)
14A	W —35139	Cond., .004 Mf. 400V.(Tub.)
14B	W —35139	Cond., .004Mf.400V.(Tub.)
15	W —35936	Cond., .05Mf.200V.(Tub.)
16	W — 24049-B	Cond., .1Mf.200V.(Tub.)
17	W —37873	Cond., .1Mf. 400V.(Tub.)
18	W —30488	Cond., .02Mf.400 V.Tub.)
19	W —30805	Cond., .01 Mf.400V.(Tub.)
20	W —35951	Cond.-3 Section Trimmer
21	G21 —33001	Cond.-2 Section Tuning
	B —42142-A	Dial-Calibrated Glass
	—42346	Drive Unit
	B —42338	Mask-Metal
	—41145	Pointer-Dial
	W —40486	Screw, Pointer Mtg.
	MG27—42151	Dial Drive Complete
	—41582	Cable, Drive
22	W —36055	Cond., 35Mf.400V.(Elect.)
23	W —36057	Cond., 40Mf.300V.(Elect.)
24	B —33906-A	Cord and Plug, Power
25	G4 —35696	Speaker Cable
26	—40757	Resistor, 50,000 Ohm ¼W. (Car.)
27	W —37987	Resistor, 15,000 Ohm1W (WireWound)
28A	—36688	Resistor, 3 Megohm ¼W. (Car.)
28B	—36688	Resistor, 3 Megohm ¼W. (Car.)
29	—21455	Resistor, 300,000 Ohm ¼W. (Car.)
30	—35930	Resistor, 200,000 Ohm ¼W. (Car.)
31	W —21964	Resistor, 165 Ohm ¾W. (Flex.)
32	W —35457	Resistor, 210 Ohm ¾W. (Flex.)
33	W —27503	Resistor, 1400 Ohm ¾W. (Flex.)
34Z	W —32301	Resistor, 10,000 Ohm Candohm
34Y		Resistor, 15,000 Ohm
35	G156 —36400	Socket Type 6A8
36	G152 —36400	Socket Type 6C5
37	G151 —36400	Socket Type 6K7
38	G155 —36400	Socket Type 6H6
39	G158 —36400	Socket Type 6F5
40	G165 —36400	Socket Type 6N6
41	332—BJ3	Speaker "M" Spec. 1-D-390
	—41638	Cone Assy. for "M"332BJ3
	—40275	Field Coil for "M"332BJ3
	—41639	Output Trans. for "M" 332BJ3
42	—40770-A	Switch, Band Selector
43	G27 —26719	Terminal Board, Antenna & Grd.
44Z	—37908	Tone Control, 100,000 Ohm
44Y		Switch, Line
45	—41978	Transformer, 110V. 60 Cy.
	—42149	Transformer, 110V. 25 Cy.
	—42150	Transformer, 220V. 25 Cy.
46	—37967	Volume Control 1Megohm
47	W —29910-A	Cond., .25Mf.200V.(Tub.)
48	W —28621	Cond., .02Mf.200V.(Tub.)
49	W —35758	Cond., .008, 400V. (Tub.)
50	—23785	Resistor, 500,000 Ohm ¼W. (Car.)
	W —42345	Escutcheon
	D —28	Screw Escutcheon Mtg.



CHASSIS 5W.



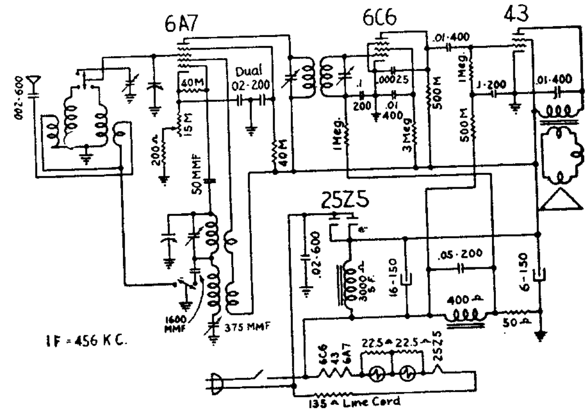
Detrola Radio Corp.
Model 5X



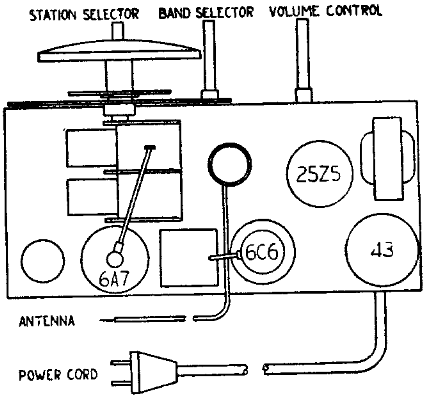
I.F. 456 KC.

Detrola Radio & Tel. Corp.

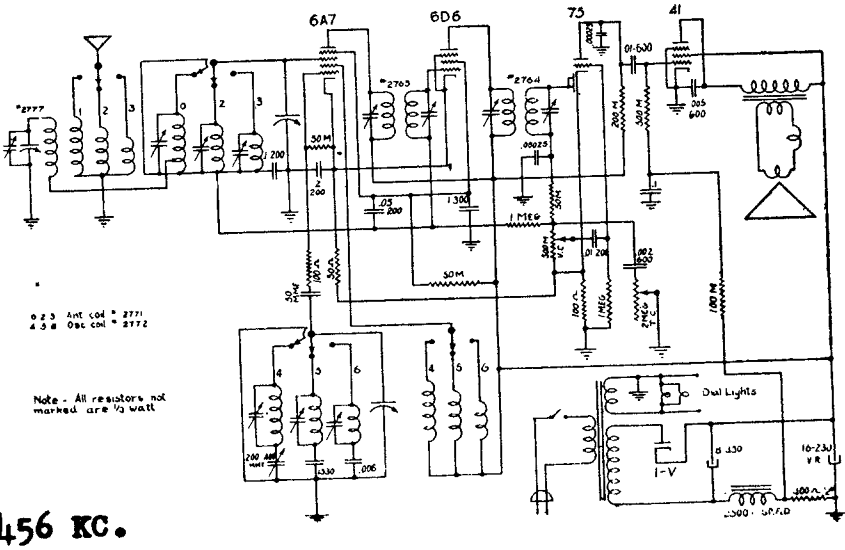
MODEL 100A



IF = 456 K C.



MODEL 134



0 2 3 Ant coil # 2771
4 5 6 Osc coil # 2772

Note - All resistors not marked are ½ watt

I.F. 456 KC.

MODEL 106

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

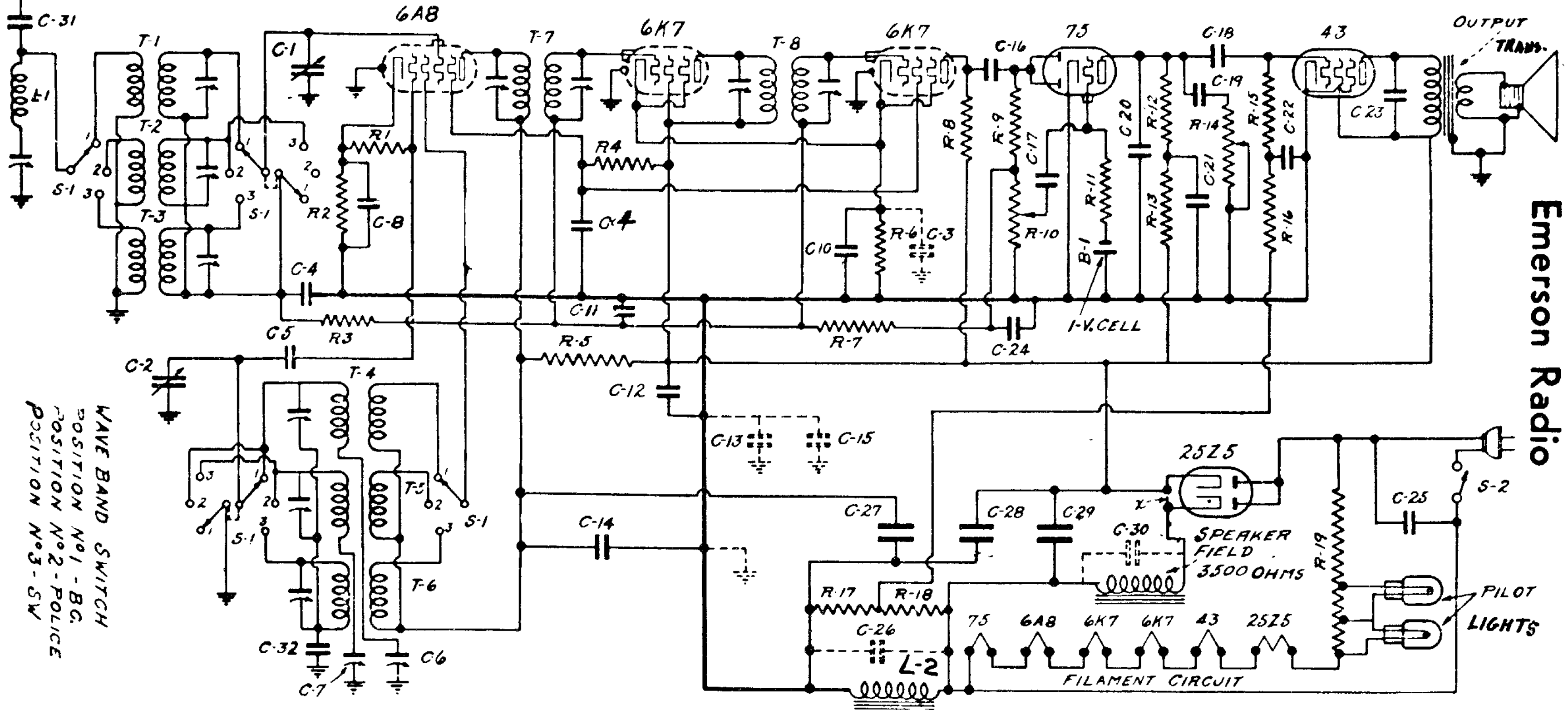
MODELS 107 and 111

Emerson Radio

Chassis Model U6A

L1	456 kc adjustable wave-trap
L2	Filter choke—500 ohms
T1, T2, T3	Three-band antenna coil assembly
T4, T5, T6	Three-band oscillator coil assembly
T7	456 kc first i-f transformer
T8	456 kc second i-f transformer
R1, R8	50,000 ohm, ¼ watt carbon resistor
R2	500 ohm, ½ watt wire-wound resistor
R3, R7, R11	1 megohm, ¼ watt carbon resistor
R4	30,000 ohm, ¼ watt carbon resistor
R5, R17	10,000 ohm, ¼ watt carbon resistor
R6	850 ohm, ½ watt wire-wound resistor
R9, R13	100,000 ohm, ¼ watt carbon resistor
R10, S2	Volume control with line switch—0.5 megohms
R12	200,000 ohm, ¼ watt carbon resistor
R14	Tone control—0.25 megohms
R15, R16	500,000 ohm, ¼ watt carbon resistor
R18	5,000 ohm, ¼ watt carbon resistor
R19	Wire-wound ballast resistor—130 ohms
C1, C2	Two-gang variable condenser
C3, C4, C21, C22, C25	0.1 mf, 200 volt tubular condenser

C5	0.0001 mf mica condenser
C6, C7	Dual adjustable padding condenser C6—250 to 550 mmf. C7—800 to 1400 mmf.
C8, C9, C10, C11, C12, C13, C14	Seven-section condenser block C8—0.1 mf, 200 v. C9—0.1 mf, 200 v. C10—0.2 mf, 200 v. C11—0.05 mf, 200 v. C12—0.1 mf, 200 v. C13—0.1 mf, 200 v. C14—0.1 mf, 200 v.
C15	0.02 mf, 200 v. tubular condenser
C16, C20, C24	0.00025 mf mica condenser
C17, C18	0.01 mf, 200 v. tubular condenser
C19	0.006 mf, 200 v. tubular condenser
C23, C31	0.001 mf mica condenser
C26	0.25 mf, 200 v. tubular condenser
C27, C28, C29	4, 8 and 16 mf electrolytic filter condenser block C27—4 mf, 150 v. C28—8 mf, 150 v. C29—16 mf, 150 v.
C30	Tubular 4 mf, 150 v. electrolytic condenser
C32	0.005 mf mica condenser

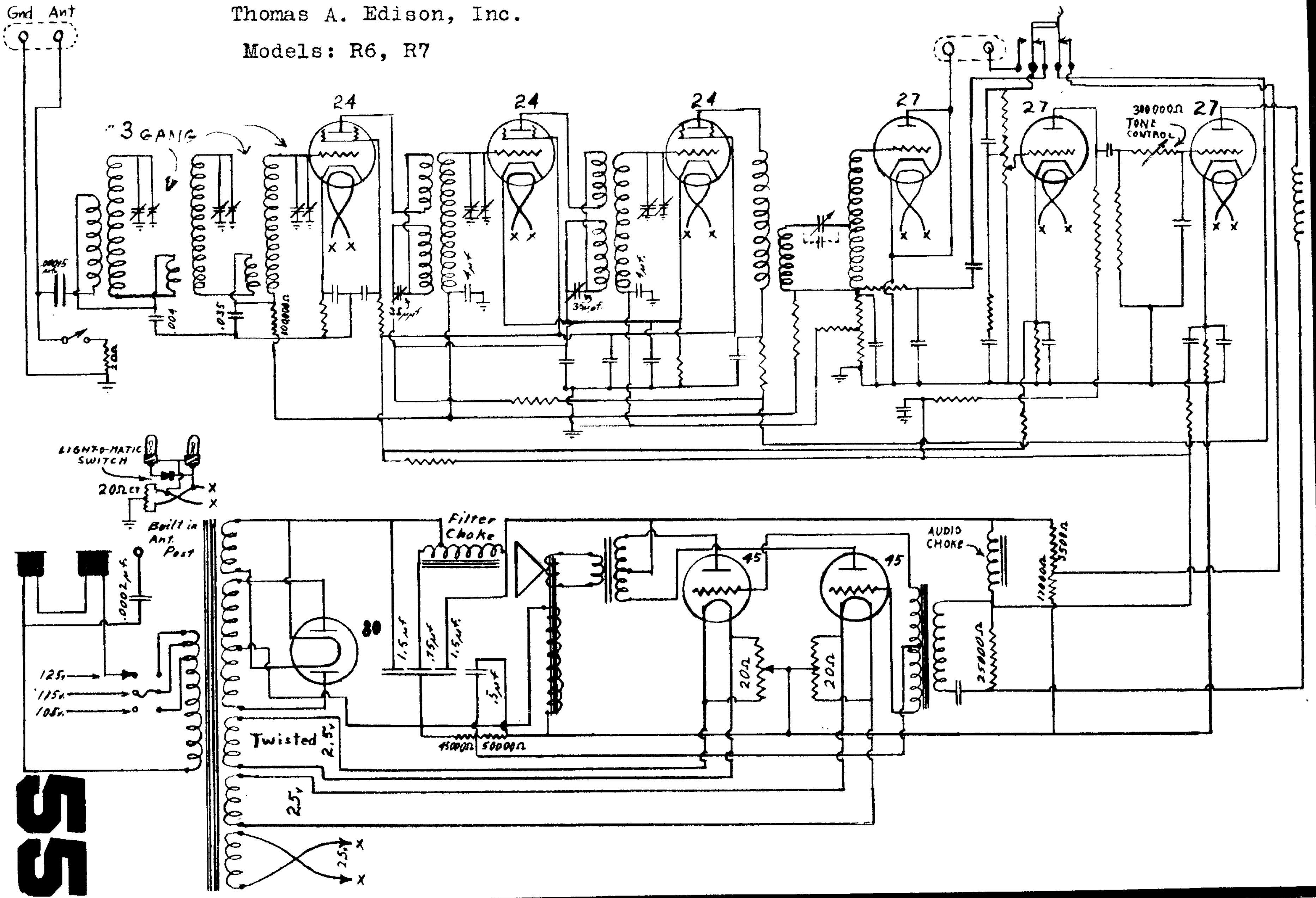


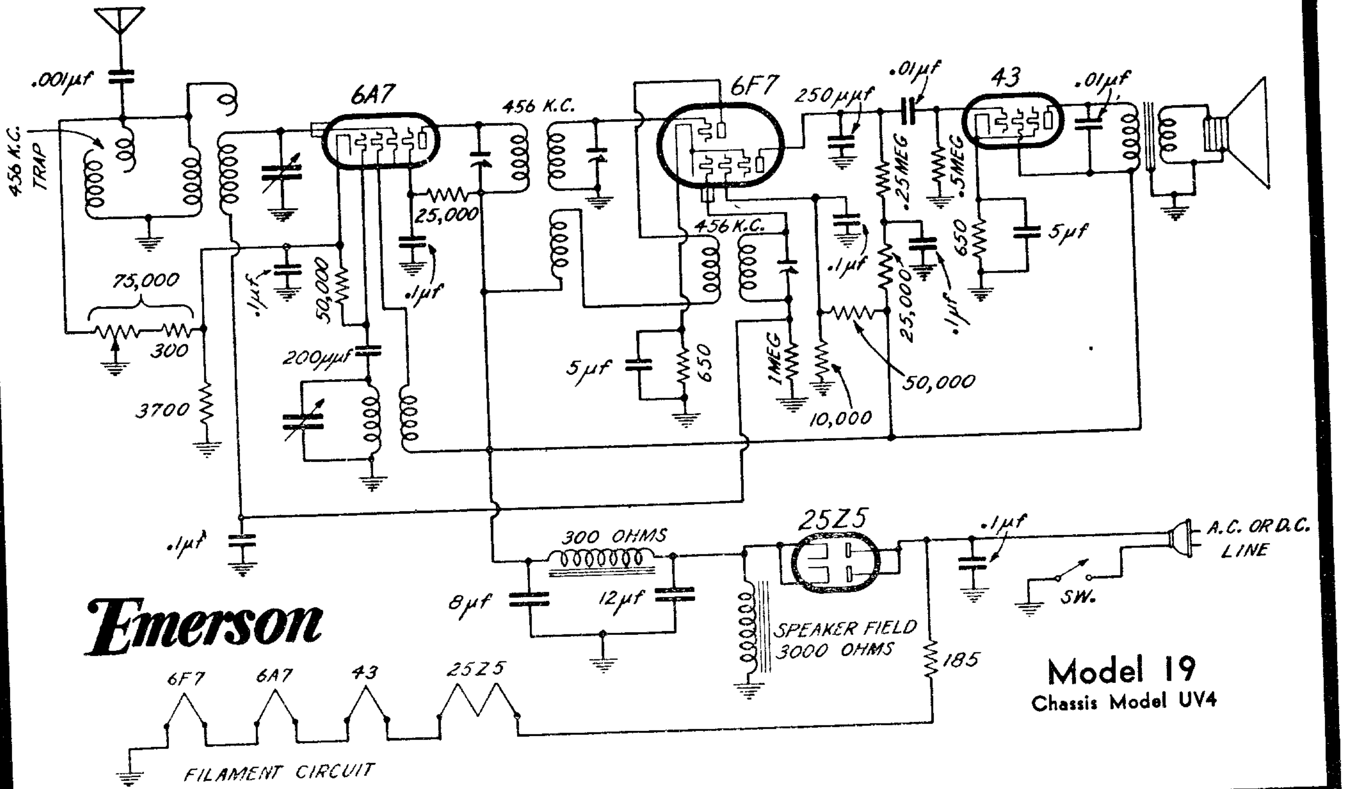
WAVE BAND SWITCH
POSITION Nº1 - BC.
POSITION Nº2 - POLICE
POSITION Nº3 - SW

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

Thomas A. Edison, Inc.

Models: R6, R7

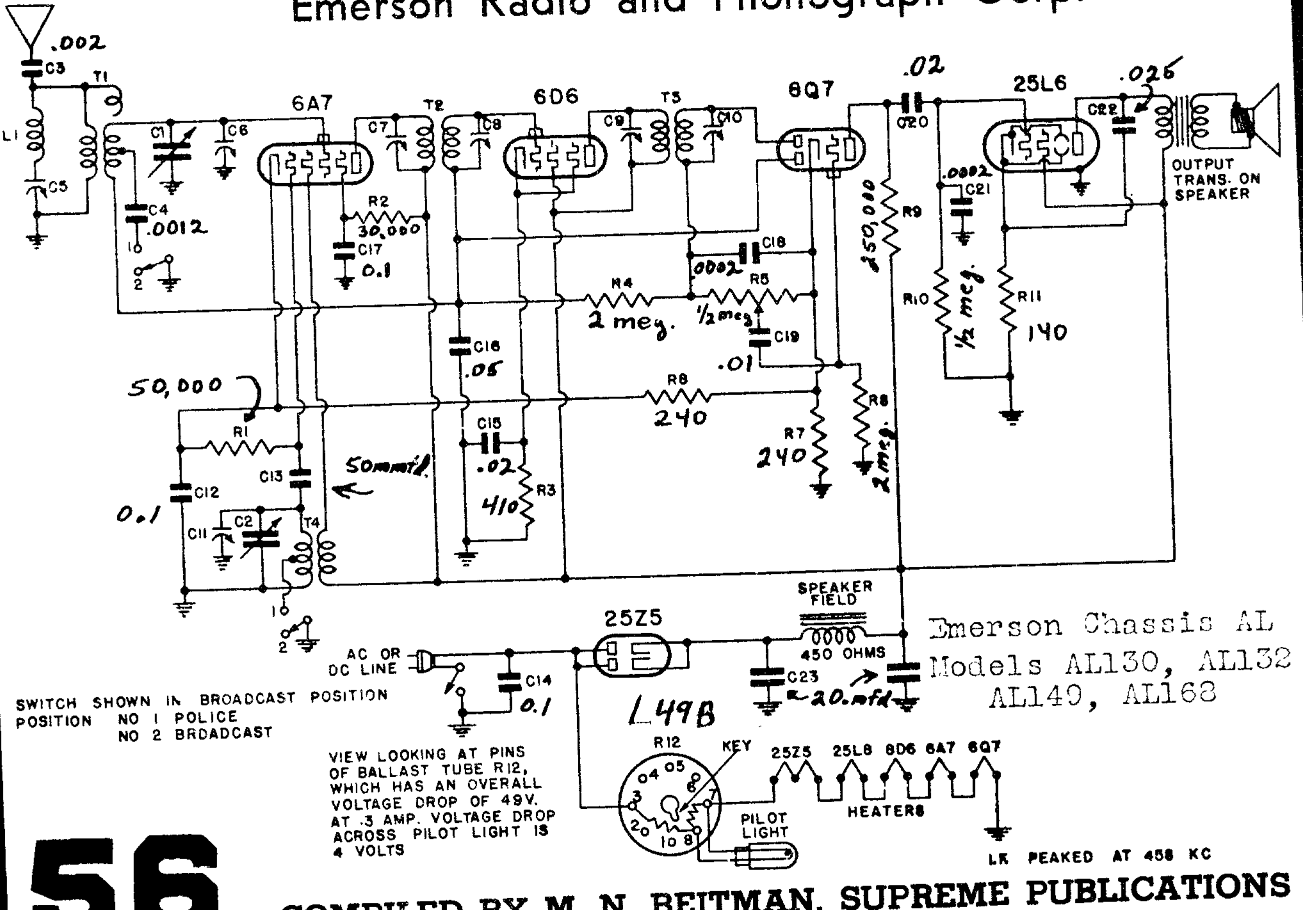




Emerson

Model 19
Chassis Model UV4

Emerson Radio and Phonograph Corp.



Emerson Chassis AL
Models AL130, AL132
AL149, AL168

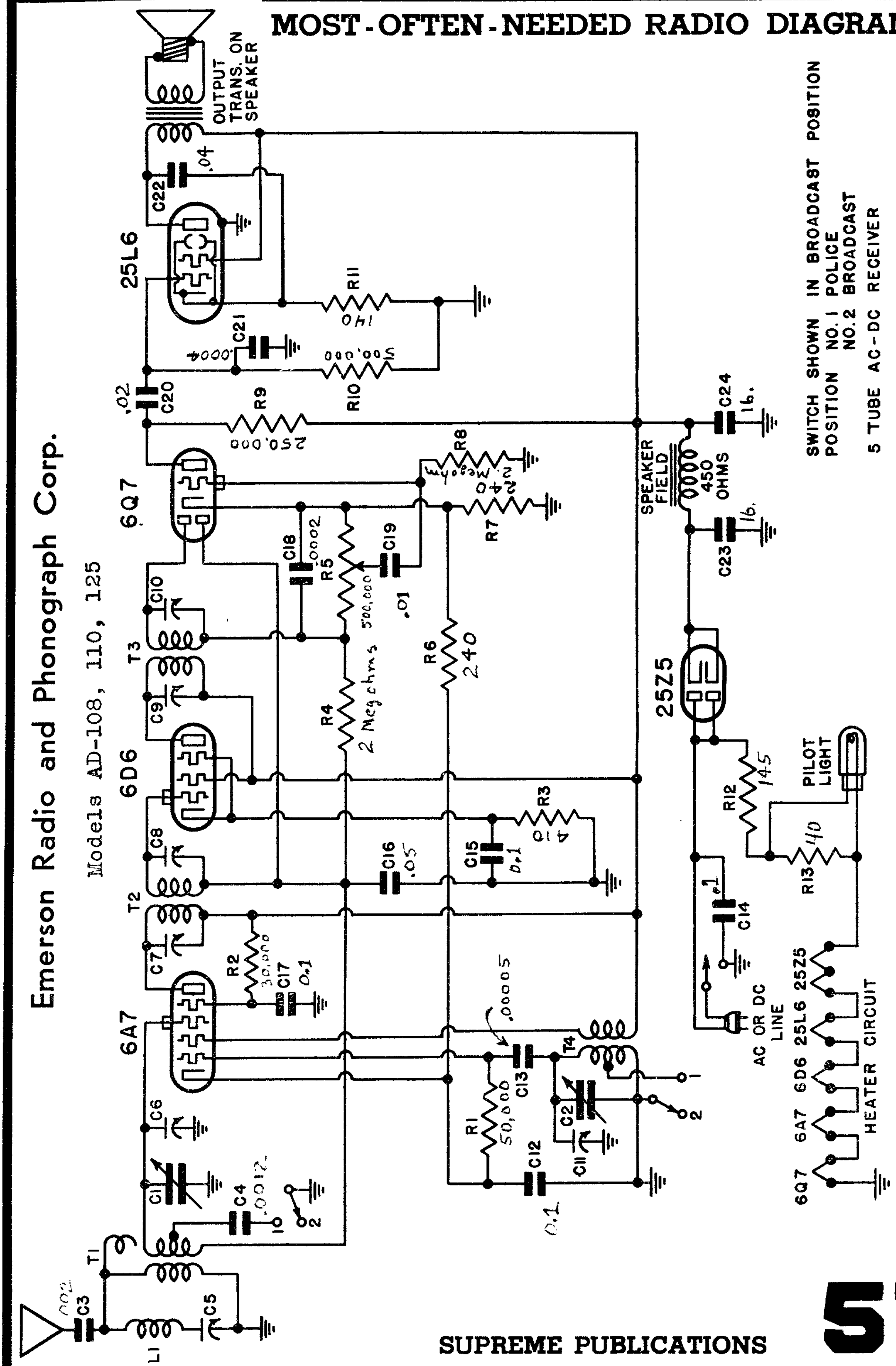
SWITCH SHOWN IN BROADCAST POSITION
POSITION NO 1 POLICE
NO 2 BROADCAST

VIEW LOOKING AT PINS OF BALLAST TUBE R12, WHICH HAS AN OVERALL VOLTAGE DROP OF 49V. AT .3 AMP. VOLTAGE DROP ACROSS PILOT LIGHT IS 4 VOLTS

LK PEAKED AT 456 KC

Emerson Radio and Phonograph Corp.

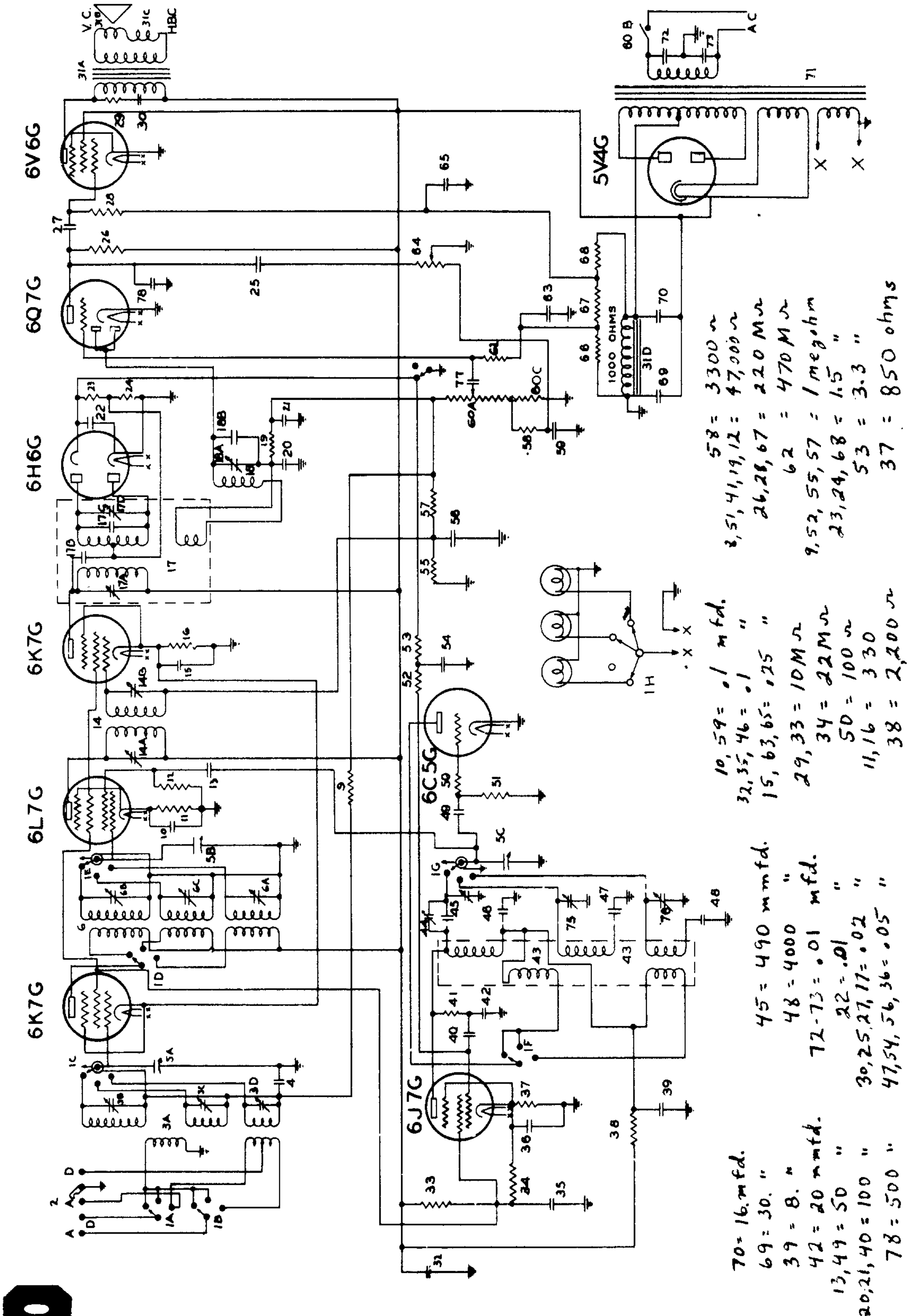
Models AD-108, 110, 125



SWITCH SHOWN IN BROADCAST POSITION
POSITION NO. 1 POLICE
NO. 2 BROADCAST

5 TUBE AC-DC RECEIVER

Fairbanks-Morse Radio, Chassis Model 9A

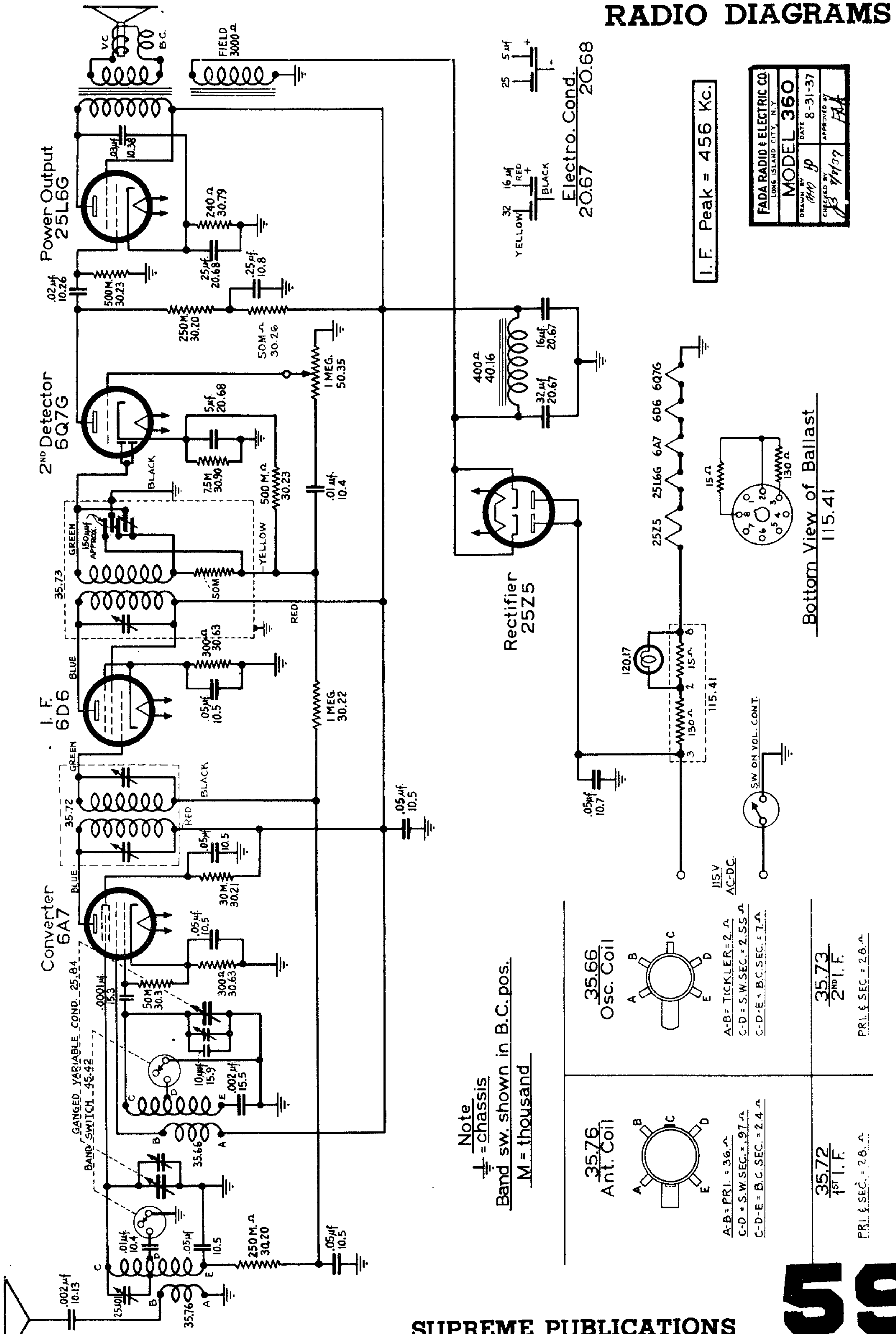


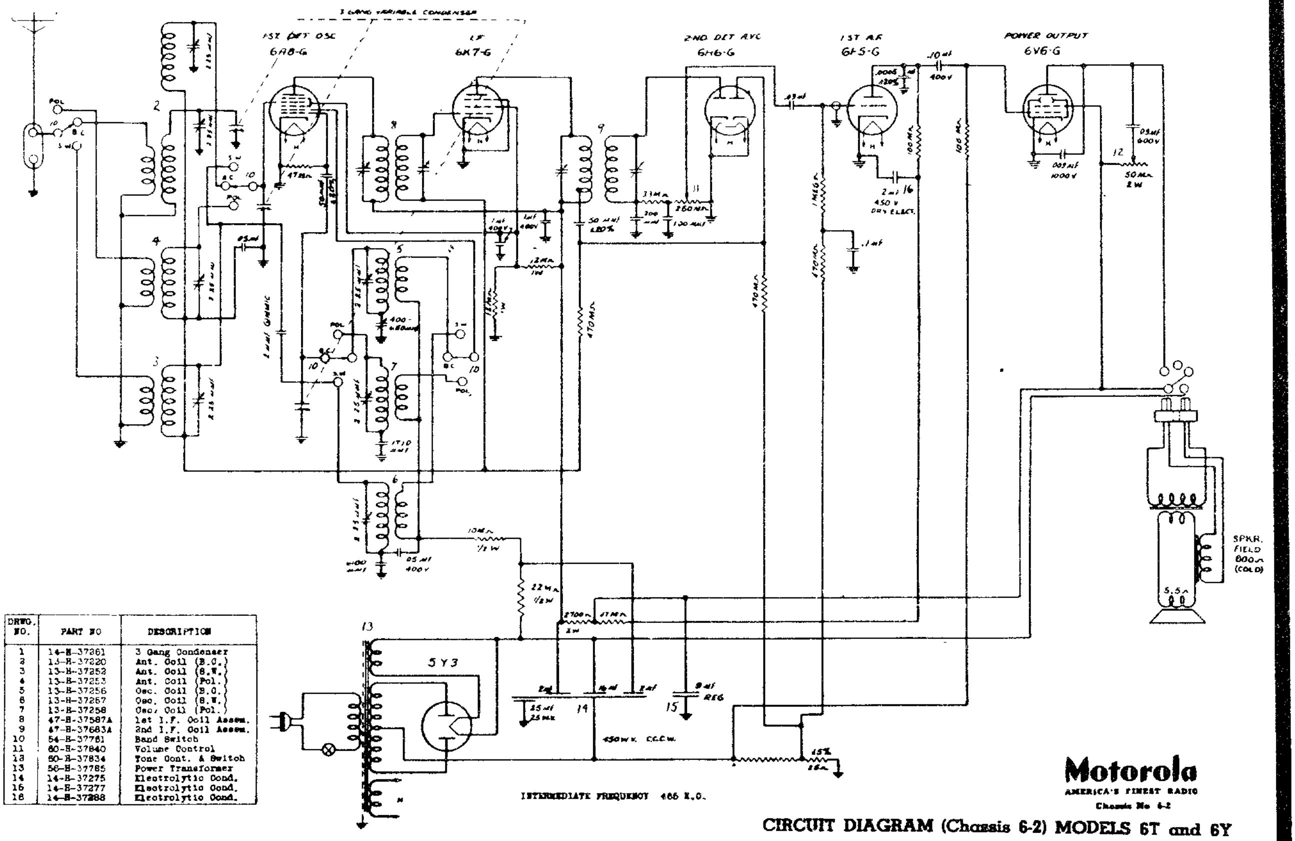
58 = 3300 Ω
3,51,41,19,12 = 47,000 Ω
26,28,67 = 220 M Ω
62 = 470 M Ω
9,52,55,57 = 1 megohm
23,24,68 = 1.5 "
53 = 3.3 "
37 = 850 ohms

10,59 = .1 mfd.
32,35,46 = .1 "
15,63,65 = .25 "
29,33 = 10 M Ω
34 = 22 M Ω
50 = 100 Ω
11,16 = 330
38 = 2,200 Ω

45 = 490 mmfd.
48 = 4000 "
72-73 = .01 mfd.
22 = .01 "
30,25,27,17 = .02 "
47,54,56,36 = .05 "

70 = 16. mfd.
69 = 30. "
39 = 8. "
42 = 20 mmfd.
13,49 = 50 "
20,21,40 = 100 "
78 = 500 "


FADA RADIO & ELECTRIC CO.
LONG ISLAND CITY, N.Y.
MODEL 360
DATE 8-31-37
I. F. Peak = 456 Kc.
Electro. Cond. 20.67 20.68
Power Output 25L6G
2ND Detector 6Q7G
I. F. 6D6
Converter 6A7
Rectifier 25Z5
VC
B.C.
FIELD 3000Ω
.03µf 10.38
240 Ω 30.79
25µf 20.68
.25µf 10.8
.02µf 10.26
500 M. 30.23
250 M. 30.20
50 M Ω 30.26
1 MEG. 50.35
400 Ω 40.16
16µf 20.67
32µf 20.67
5µf 20.68
7.5 M 30.90
500 M.Ω 30.23
.01µf 10.4
150µµf APPROX.
GREEN
BLACK
YELLOW
RED
BLUE
50 M
35.73
300 Ω 30.63
.05µf 10.5
1 MEG. 30.22
35.72
.05µf 10.5
30 M 30.21
.0001µf 15.3
50 M 30.3
300 Ω 30.63
10µµf 15.9
.002µf 15.5
GANGED VARIABLE COND. 25.84
BAND SWITCH 45.42
35.66
.01µf 10.4
.05µf 10.5
250 M.Ω 30.20
.002µf 10.13
25.101
35.76
A B C D E
25 5µf
32 16µf RED BLACK YELLOW
25Z5 25L6G 6A7 6D6 6Q7G
15 Ω 130 Ω
Bottom View of Ballast 115.41
120.17
15 Ω 130 Ω 115.41
.05µf 10.7
SW ON VOL. CONT.
115 V AC-DC
Note
⏚ = chassis
Band sw. shown in B.C. pos.
M = thousand
35.66 Osc. Coil
A-B = TICKLER = 2 Ω
C-D = S.W. SEC. = 2.55 Ω
C-D-E = B.C. SEC. = 7 Ω
35.76 Ant. Coil
A-B = PRI. = 36 Ω
C-D = S.W. SEC. = .97 Ω
C-D-E = B.C. SEC. = 2.4 Ω
35.73 2ND I.F.
PRI. & SEC. = 28 Ω
35.72 1ST I.F.
PRI. & SEC. = 28 Ω



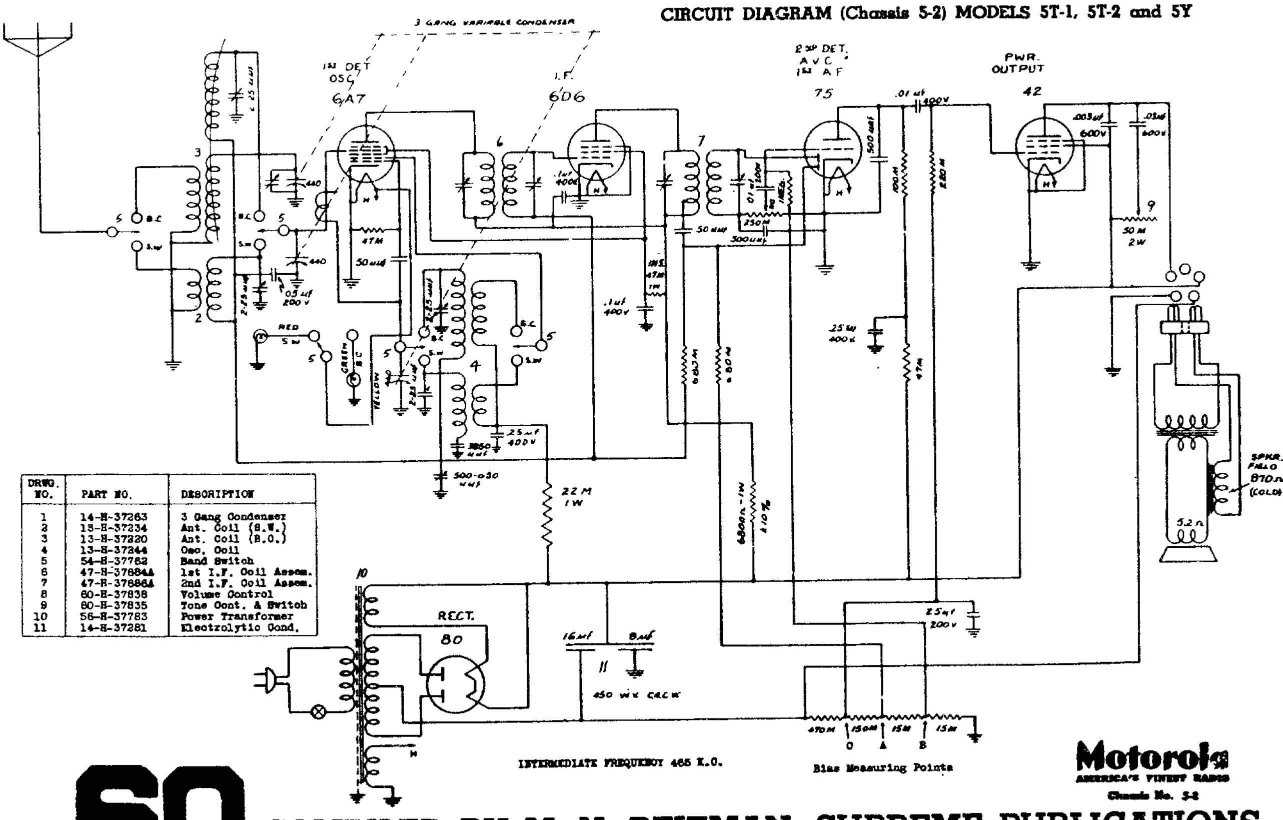
DRWG. NO.	PART NO	DESCRIPTION
1	14-H-37261	3 Gang Condenser
2	13-H-37220	Ant. Coil (B.C.)
3	13-H-37252	Ant. Coil (S.W.)
4	13-H-37253	Ant. Coil (Pol.)
5	13-H-37256	Osc. Coil (B.C.)
6	13-H-37257	Osc. Coil (S.W.)
7	13-H-37258	Osc. Coil (Pol.)
8	47-H-37587A	1st I.F. Coil Assem.
9	47-H-37683A	2nd I.F. Coil Assem.
10	54-H-37761	Band Switch
11	60-H-37840	Volume Control
12	60-H-37834	Tone Cont. & Switch
13	56-H-37785	Power Transformer
14	14-H-37275	Electrolytic Cond.
16	14-H-37277	Electrolytic Cond.
18	14-H-37288	Electrolytic Cond.

INTERMEDIATE FREQUENCY 465 K.C.

Motorola
AMERICA'S FINEST RADIO
Chassis No. 6-2

CIRCUIT DIAGRAM (Chassis 6-2) MODELS 6T and 6Y

CIRCUIT DIAGRAM (Chassis 5-2) MODELS 5T-1, 5T-2 and 5Y

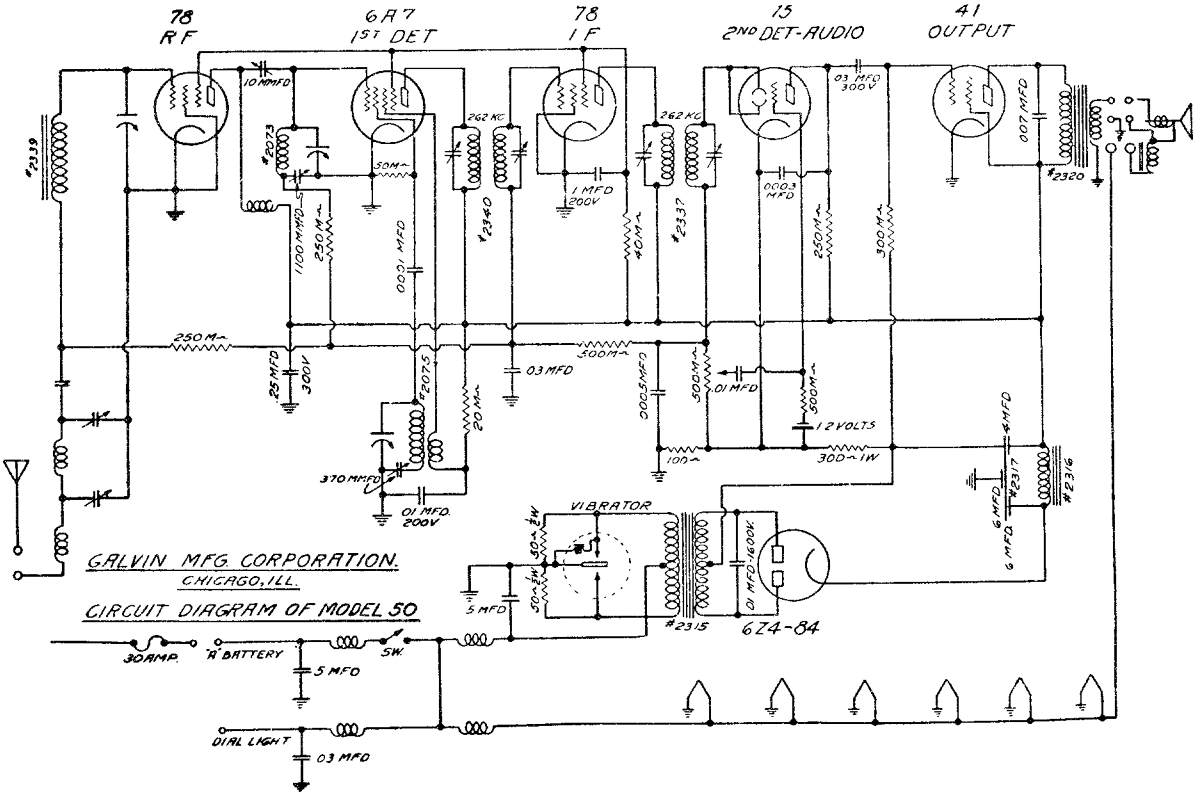


DRWG. NO.	PART NO.	DESCRIPTION
1	14-H-37263	3 Gang Condenser
2	13-H-37234	Ant. Coil (S.W.)
3	13-H-37220	Ant. Coil (B.C.)
4	13-H-37244	Osc. Coil
5	54-H-37762	Band Switch
6	47-H-37684A	1st I.F. Coil Assem.
7	47-H-37686A	2nd I.F. Coil Assem.
8	60-H-37836	Volume Control
9	60-H-37835	Tone Cont. & Switch
10	56-H-37783	Power Transformer
11	14-H-37281	Electrolytic Cond.

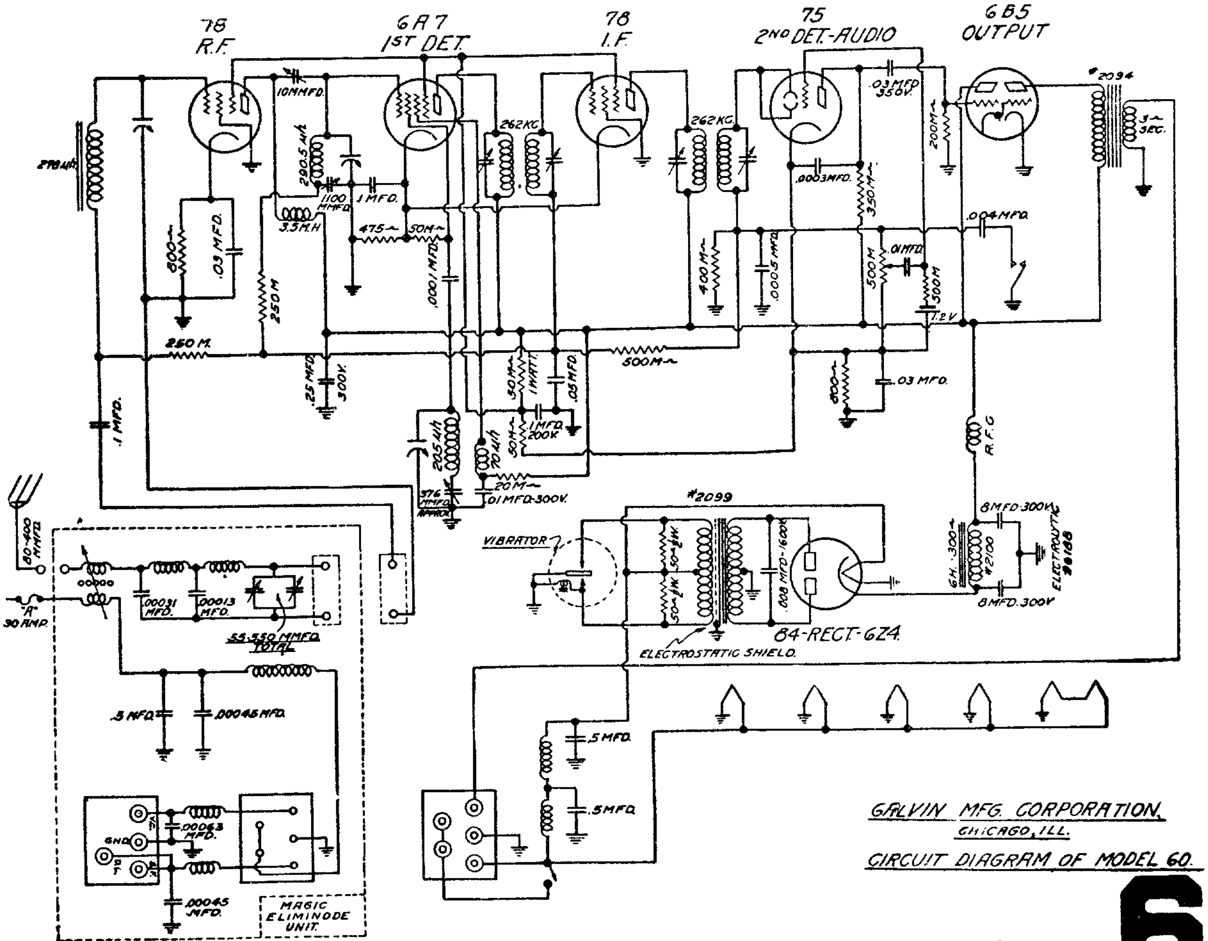
INTERMEDIATE FREQUENCY 465 K.C.

Bias Measuring Points

Motorola
AMERICA'S FINEST RADIO
Chassis No. 5-2

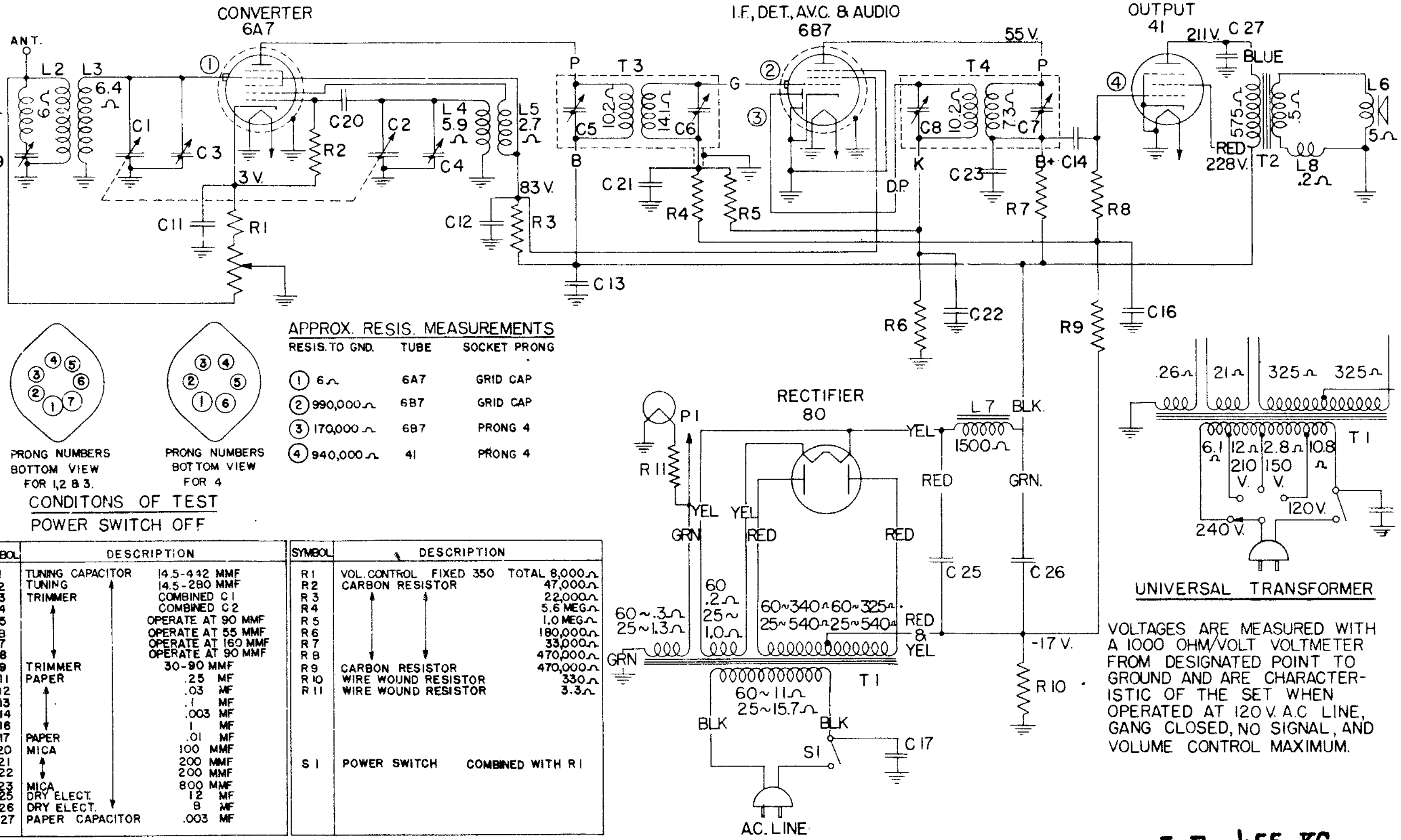


GALVIN MFG CORPORATION.
CHICAGO, ILL.
CIRCUIT DIAGRAM OF MODEL 50



GALVIN MFG. CORPORATION.
CHICAGO, ILL.
CIRCUIT DIAGRAM OF MODEL 60.

Radio Receiver, Model F-40 **General Electric Co.**



UNIVERSAL TRANSFORMER

VOLTAGES ARE MEASURED WITH A 1000 OHM/VOLT VOLTMETER FROM DESIGNATED POINT TO GROUND AND ARE CHARACTERISTIC OF THE SET WHEN OPERATED AT 120 V. A.C. LINE, GANG CLOSED, NO SIGNAL, AND VOLUME CONTROL MAXIMUM.

I.F. 455 KC.

APPROX. RESIS. MEASUREMENTS

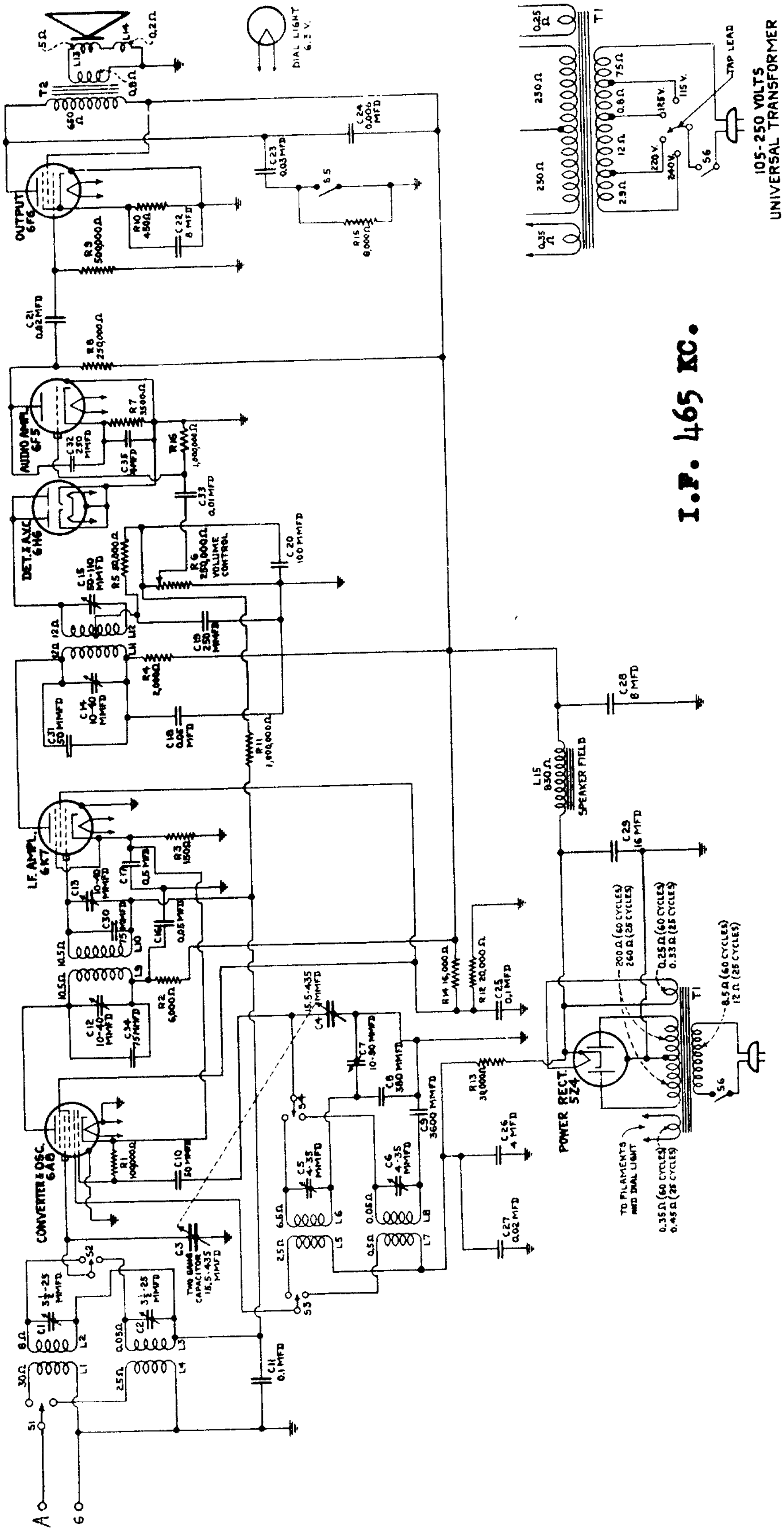
RESIS. TO GND.	TUBE	SOCKET PRONG
① 6Ω	6A7	GRID CAP
② 990,000Ω	6B7	GRID CAP
③ 170,000Ω	6B7	PRONG 4
④ 940,000Ω	41	PRONG 4

CONDITONS OF TEST
POWER SWITCH OFF

SYMBOL	DESCRIPTION	
C1	TUNING CAPACITOR	14.5-442 MMF
C2	TUNING	14.5-280 MMF
C3	TRIMMER	COMBINED C1
C4		COMBINED C2
C5		OPERATE AT 90 MMF
C6		OPERATE AT 55 MMF
C7		OPERATE AT 160 MMF
C8		OPERATE AT 90 MMF
C9	TRIMMER	30-90 MMF
C11	PAPER	.25 MF
C12		.03 MF
C13		.1 MF
C14		.003 MF
C16		1 MF
C17	PAPER	.01 MF
C20	MICA	100 MMF
C21		200 MMF
C22		200 MMF
C23	MICA	800 MMF
C25	DRY ELECT.	12 MF
C26	DRY ELECT.	8 MF
C27	PAPER CAPACITOR	.003 MF

SYMBOL	DESCRIPTION	
R1	VOL. CONTROL FIXED 350	TOTAL 8,000Ω
R2	CARBON RESISTOR	47,000Ω
R3		22,000Ω
R4		5.6 MEGΩ
R5		1.0 MEGΩ
R6		180,000Ω
R7		33,000Ω
R8		470,000Ω
R9	CARBON RESISTOR	470,000Ω
R10	WIRE WOUND RESISTOR	330Ω
R11	WIRE WOUND RESISTOR	3.3Ω
S1	POWER SWITCH	COMBINED WITH R1

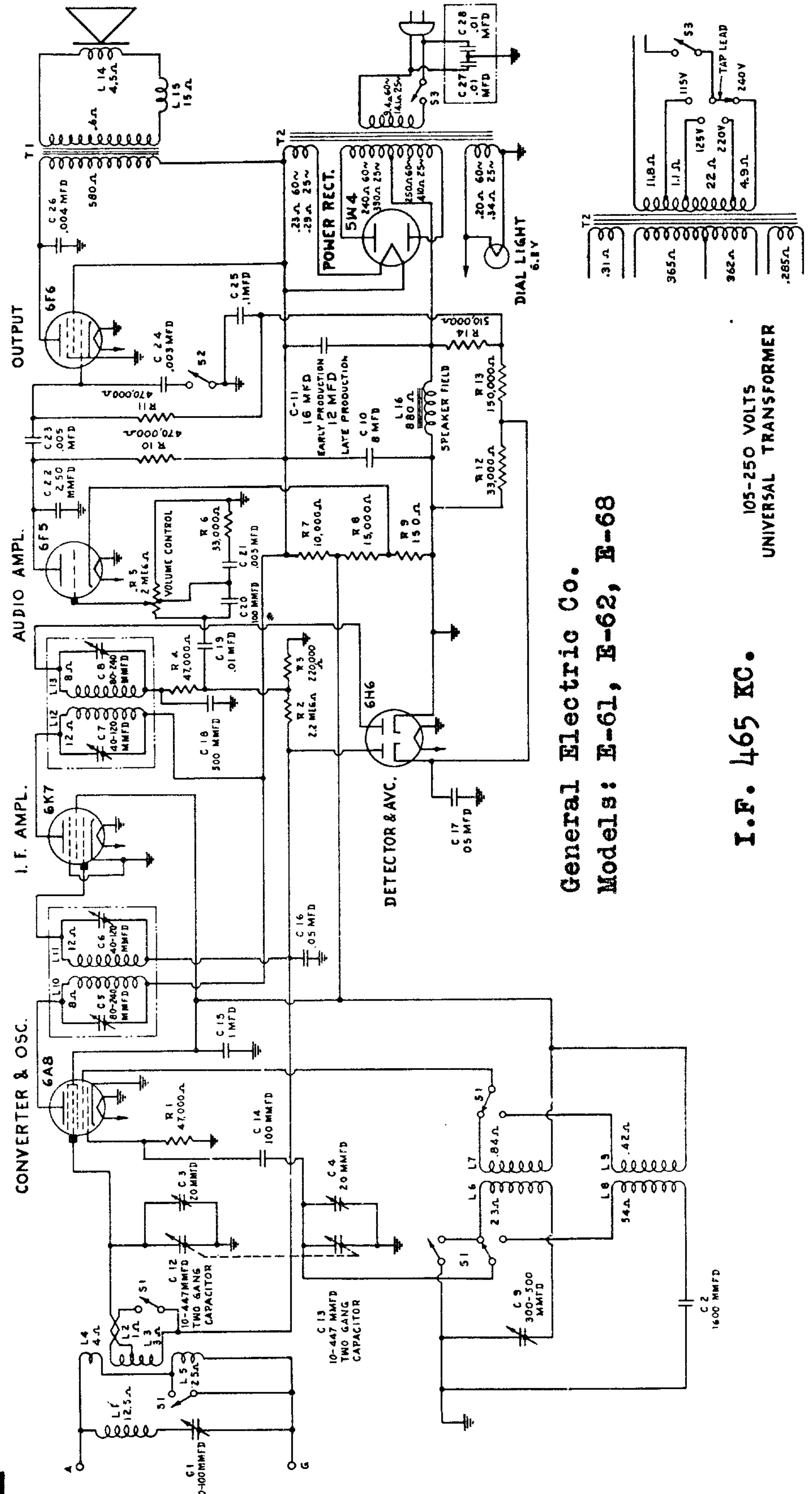
Models A-63 and A-65 **General Electric Co.**



I.F. 465 KC.

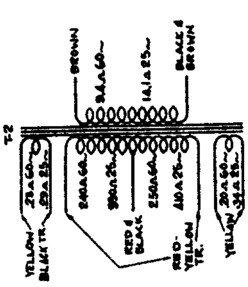
General Electric Co.
Models: E-61, E-62, E-68

I.F. 465 KC.

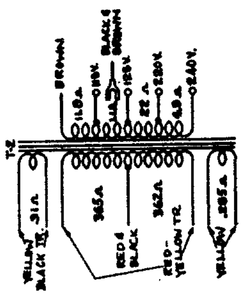


General Electric

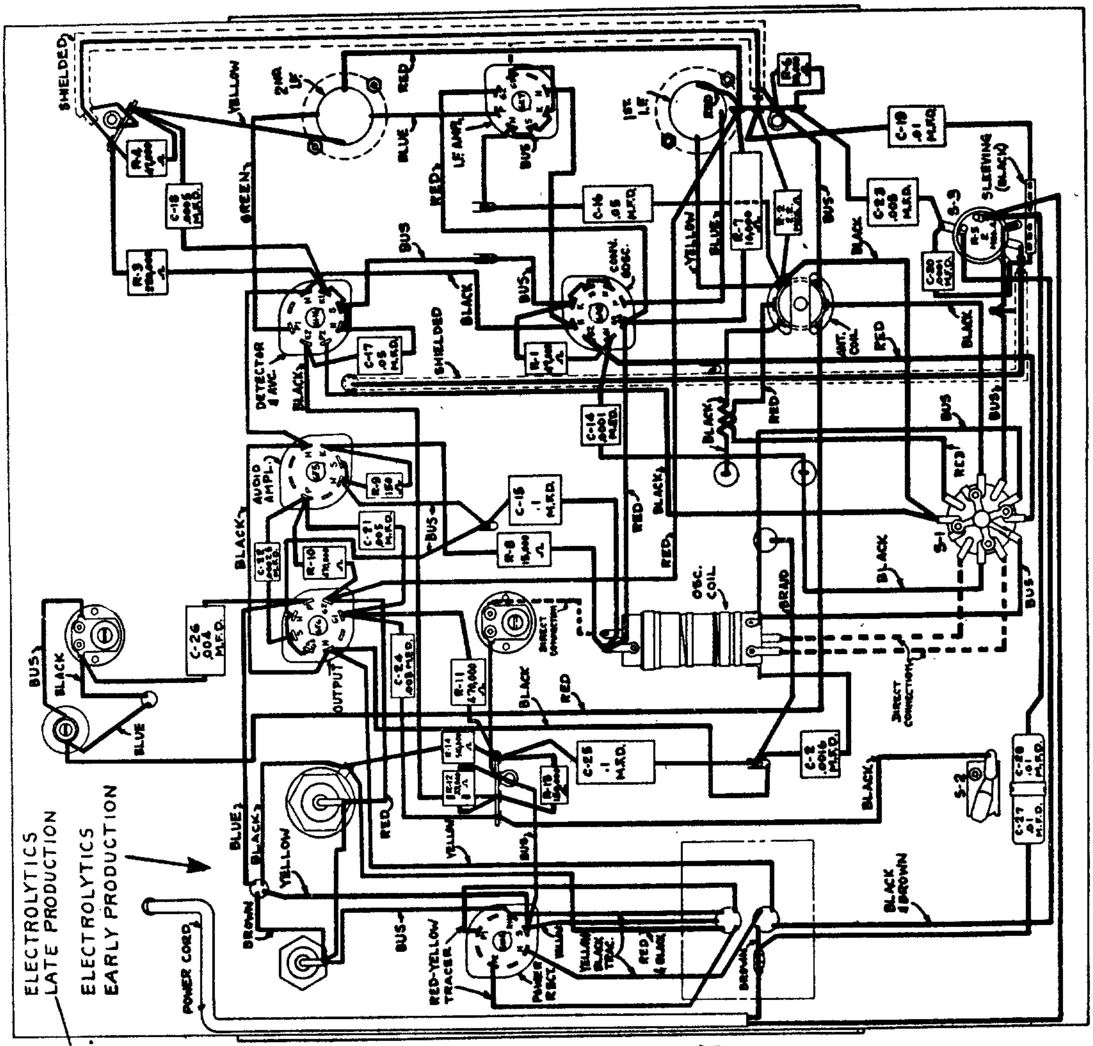
Radio Receivers, Models E-61, E-62, and E-68

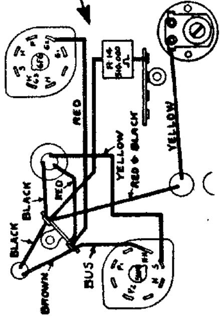


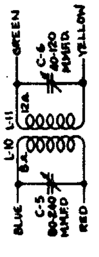
INTERNAL CONNECTIONS OF POWER TRANSFORMER FOR 115 VOLTS



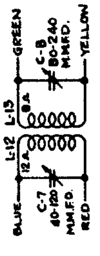
INTERNAL CONNECTIONS OF UNIVERSAL POWER TRANSFORMER FOR 105-250 VOLTS



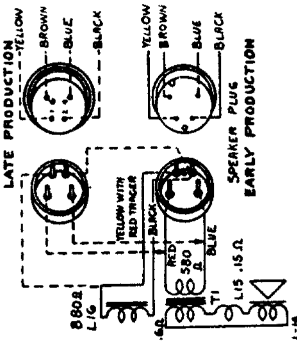




INTERNAL CONNECTIONS OF 1ST I.F. TRANSFORMER



INTERNAL CONNECTIONS OF 2ND I.F TRANSFORMER



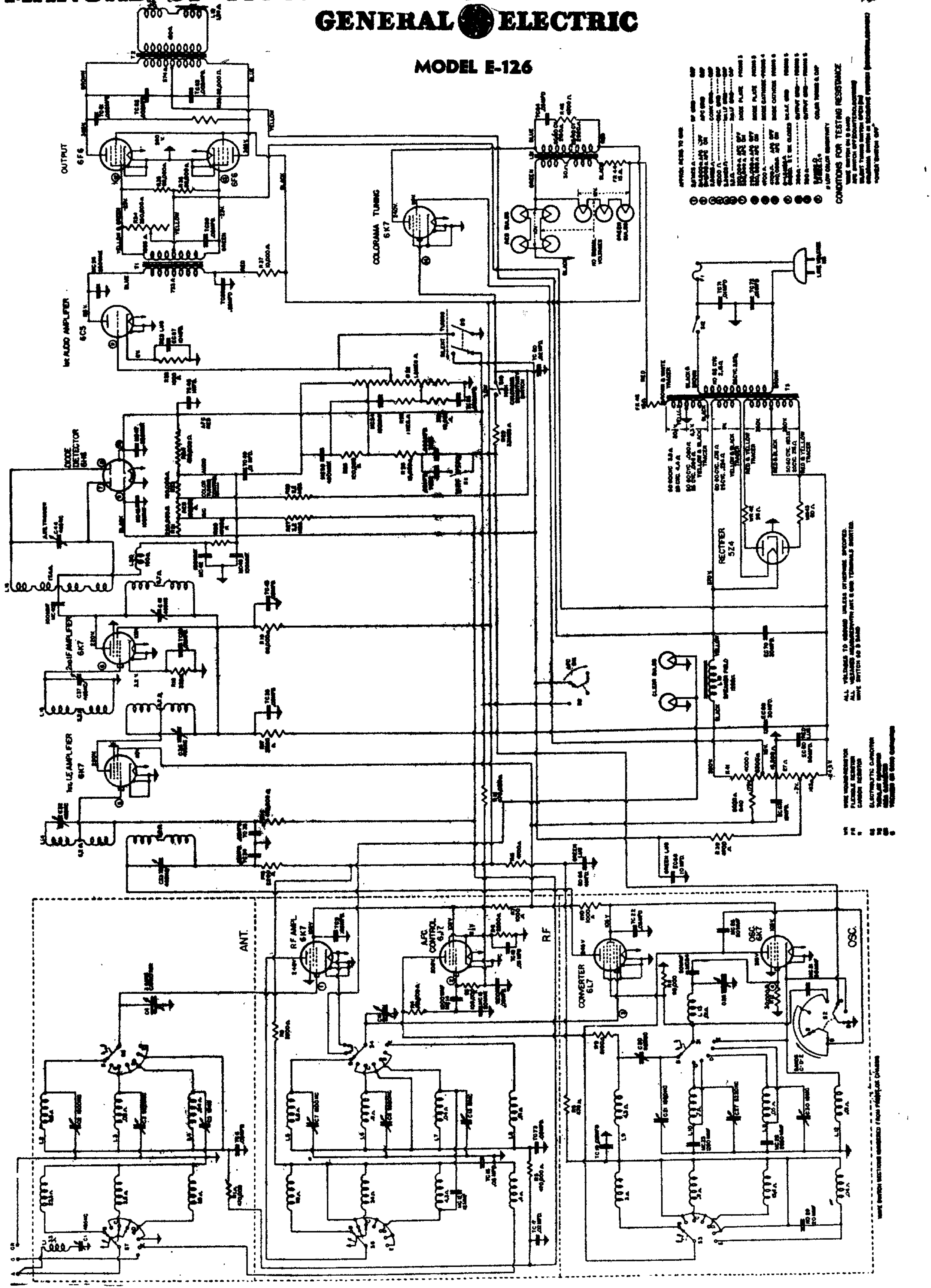
SPEAKER PLUG LATE PRODUCTION

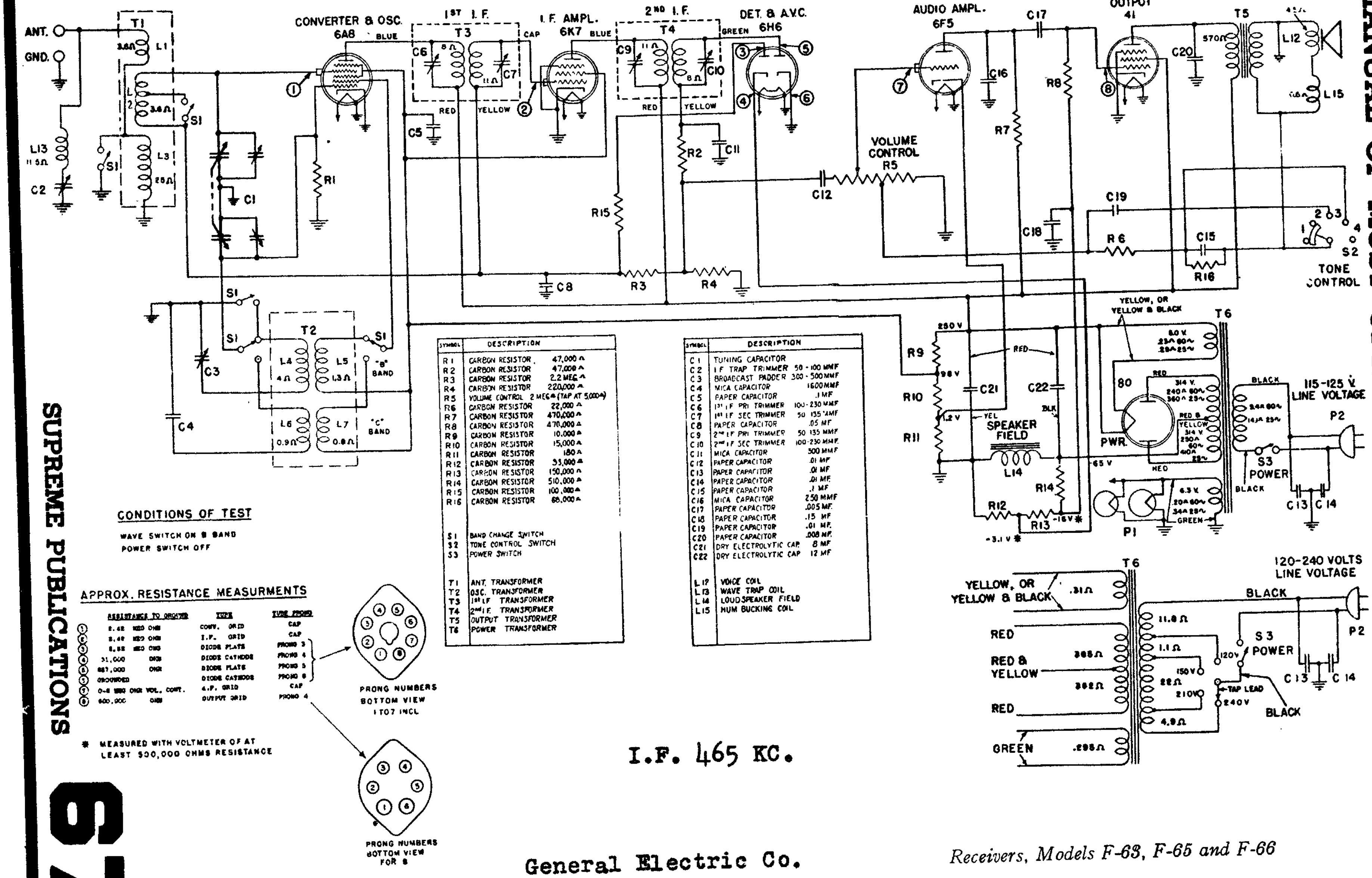
SPEAKER PLUG EARLY PRODUCTION

INTERNAL SPEAKER CONNECTIONS

GENERAL ELECTRIC

MODEL E-126





SYMBOL	DESCRIPTION
R 1	CARBON RESISTOR 47,000 Ω
R 2	CARBON RESISTOR 47,000 Ω
R 3	CARBON RESISTOR 2.2 MEG Ω
R 4	CARBON RESISTOR 220,000 Ω
R 5	VOLUME CONTROL 2 MEG Ω (TAP AT 5,000 Ω)
R 6	CARBON RESISTOR 22,000 Ω
R 7	CARBON RESISTOR 470,000 Ω
R 8	CARBON RESISTOR 470,000 Ω
R 9	CARBON RESISTOR 10,000 Ω
R 10	CARBON RESISTOR 15,000 Ω
R 11	CARBON RESISTOR 180 Ω
R 12	CARBON RESISTOR 33,000 Ω
R 13	CARBON RESISTOR 150,000 Ω
R 14	CARBON RESISTOR 510,000 Ω
R 15	CARBON RESISTOR 100,000 Ω
R 16	CARBON RESISTOR 68,000 Ω
S 1	BAND CHANGE SWITCH
S 2	TONE CONTROL SWITCH
S 3	POWER SWITCH
T 1	ANT. TRANSFORMER
T 2	OSC. TRANSFORMER
T 3	1st I.F. TRANSFORMER
T 4	2nd I.F. TRANSFORMER
T 5	OUTPUT TRANSFORMER
T 6	POWER TRANSFORMER

SYMBOL	DESCRIPTION
C 1	TUNING CAPACITOR
C 2	I.F. TRAP TRIMMER 50 - 100 MMF
C 3	BROADCAST PADDER 300 - 500 MMF
C 4	MICA CAPACITOR 1600 MMF
C 5	PAPER CAPACITOR .1 MF
C 6	1st I.F. PRI. TRIMMER 100 - 230 MMF
C 7	1st I.F. SEC. TRIMMER 50 135 MMF
C 8	PAPER CAPACITOR .05 MF
C 9	2nd I.F. PRI. TRIMMER 50 135 MMF
C 10	2nd I.F. SEC. TRIMMER 100 - 230 MMF
C 11	MICA CAPACITOR 500 MMF
C 12	PAPER CAPACITOR .01 MF
C 13	PAPER CAPACITOR .01 MF
C 14	PAPER CAPACITOR .01 MF
C 15	PAPER CAPACITOR .1 MF
C 16	MICA CAPACITOR 250 MMF
C 17	PAPER CAPACITOR .005 MF
C 18	PAPER CAPACITOR .15 MF
C 19	PAPER CAPACITOR .01 MF
C 20	PAPER CAPACITOR .008 MF
C 21	DRY ELECTROLYTIC CAP. 8 MF
C 22	DRY ELECTROLYTIC CAP. 12 MF
L 12	VOICE COIL
L 13	WAVE TRAP COIL
L 14	LOUDSPEAKER FIELD
L 15	HUM BUCKING COIL

CONDITIONS OF TEST

WAVE SWITCH ON B BAND
POWER SWITCH OFF

APPROX. RESISTANCE MEASURMENTS

	RESISTANCE TO GROUND	TYPE	TUBE PRONG
①	2.42 MEG OHM	CONV. GRID	CAP
②	2.42 MEG OHM	I.F. GRID	CAP
③	2.52 MEG OHM	DIODE PLATE	PRONG 3
④	31,000 OHM	DIODE CATHODE	PRONG 4
⑤	887,000 OHM	DIODE PLATE	PRONG 5
⑥	GROUNDED	DIODE CATHODE	PRONG 6
⑦	0-2 MEG OHM VOL. CONT.	A.F. GRID	CAP
⑧	500,000 OHM	OUTPUT GRID	PRONG 4

* MEASURED WITH VOLTMETER OF AT LEAST 500,000 OHMS RESISTANCE

I.F. 465 KC.

General Electric Co.

Receivers, Models F-63, F-65 and F-66

MODELS A-82 AND A-87

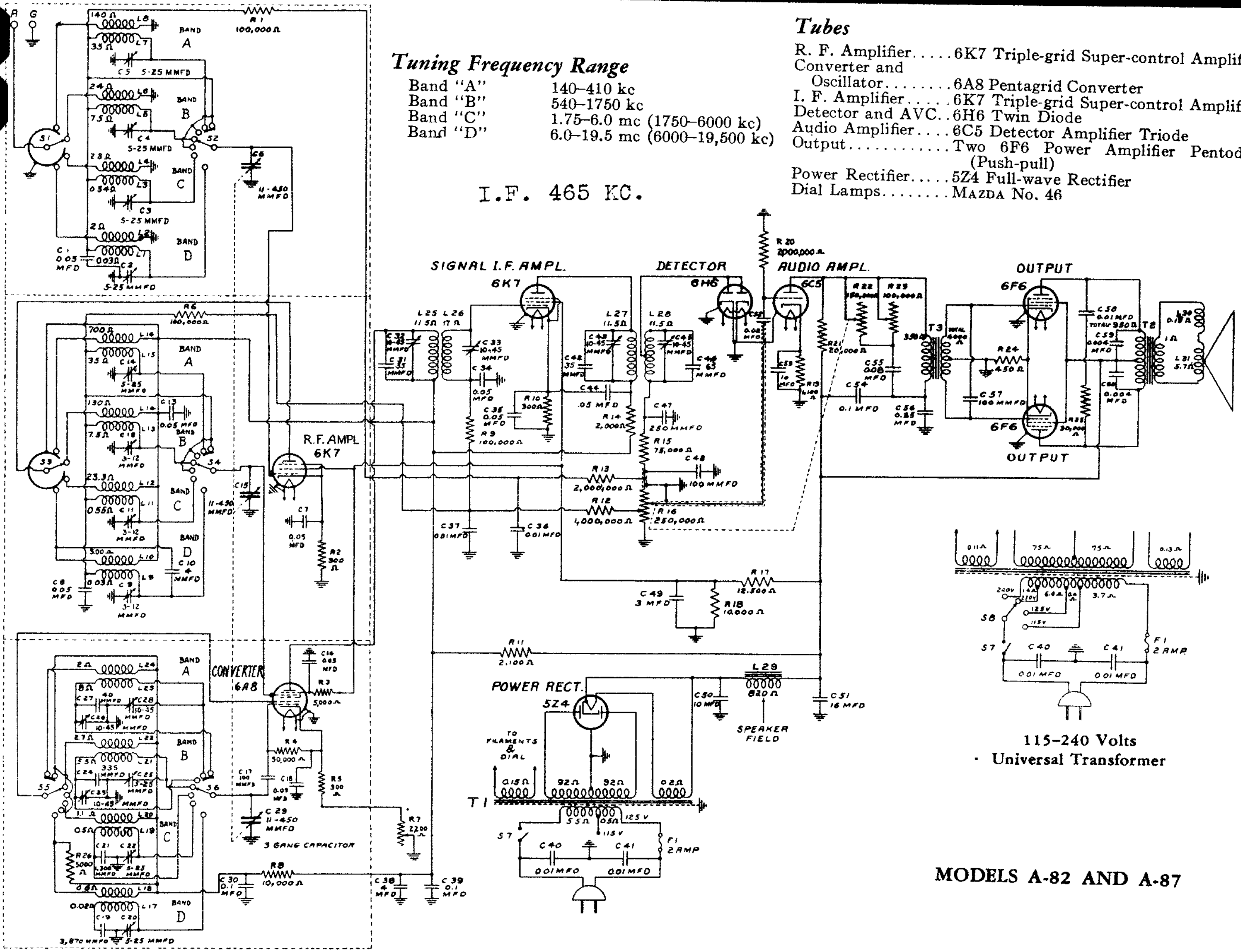
Tubes

R. F. Amplifier	6K7 Triple-grid Super-control Amplifier
Converter and Oscillator	6A8 Pentagrid Converter
I. F. Amplifier	6K7 Triple-grid Super-control Amplifier
Detector and AVC	6H6 Twin Diode
Audio Amplifier	6C5 Detector Amplifier Triode
Output	Two 6F6 Power Amplifier Pentodes (Push-pull)
Power Rectifier	5Z4 Full-wave Rectifier
Dial Lamps	MAZDA No. 46

Tuning Frequency Range

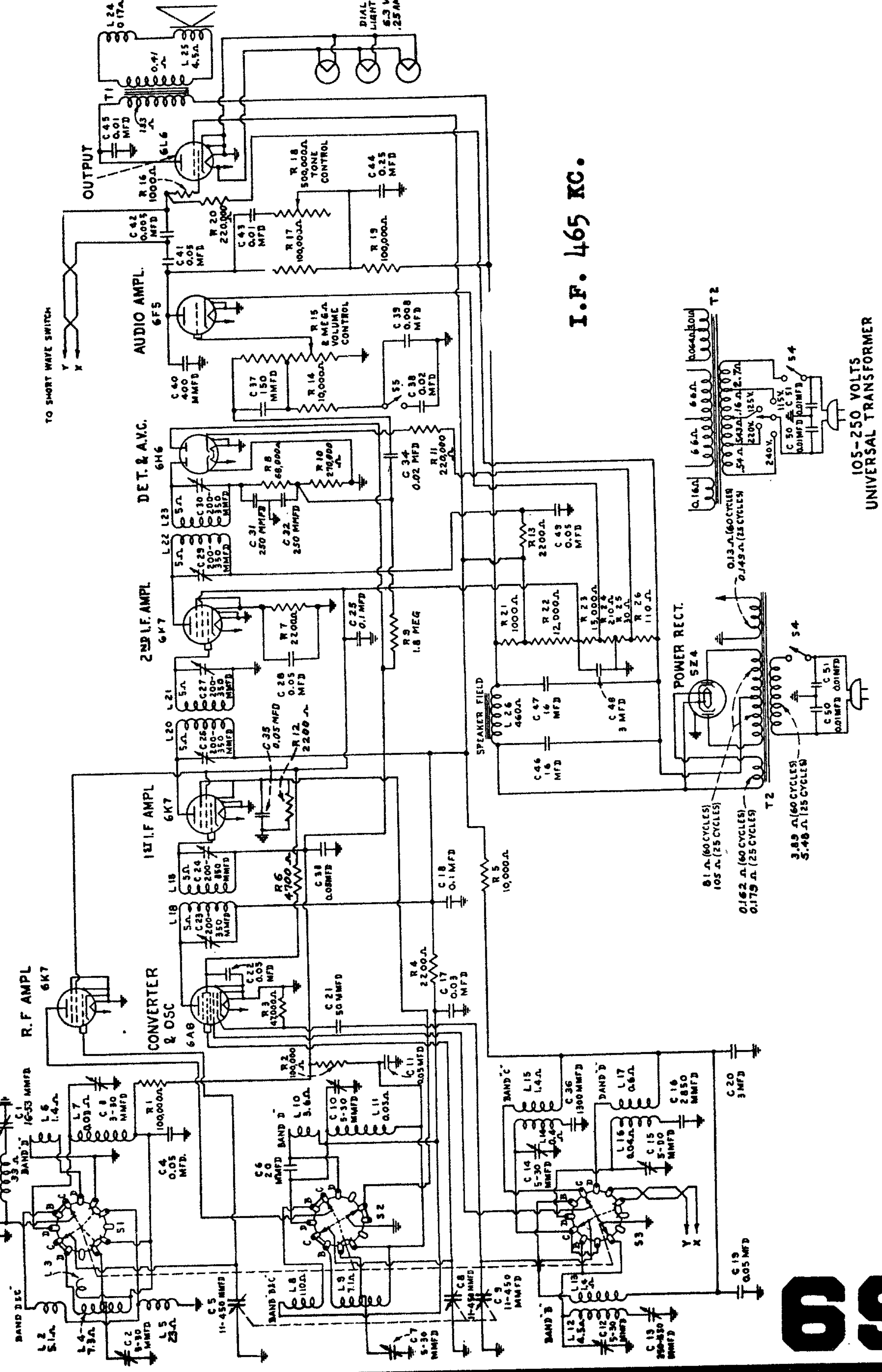
Band "A"	140–410 kc
Band "B"	540–1750 kc
Band "C"	1.75–6.0 mc (1750–6000 kc)
Band "D"	6.0–19.5 mc (6000–19,500 kc)

I.F. 465 KC.



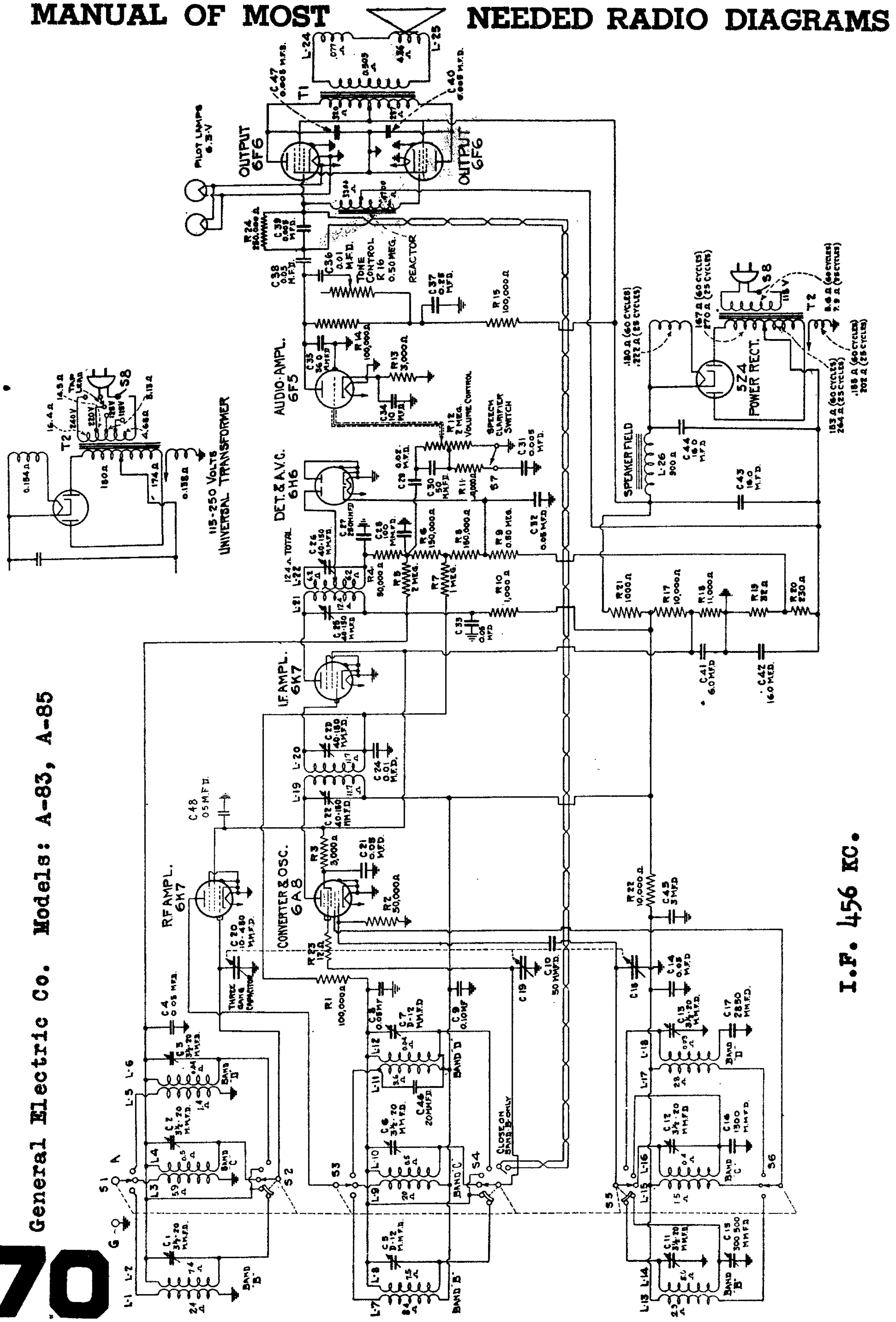
General Electric Co.

Radio Receivers, Models E-81 and E-86



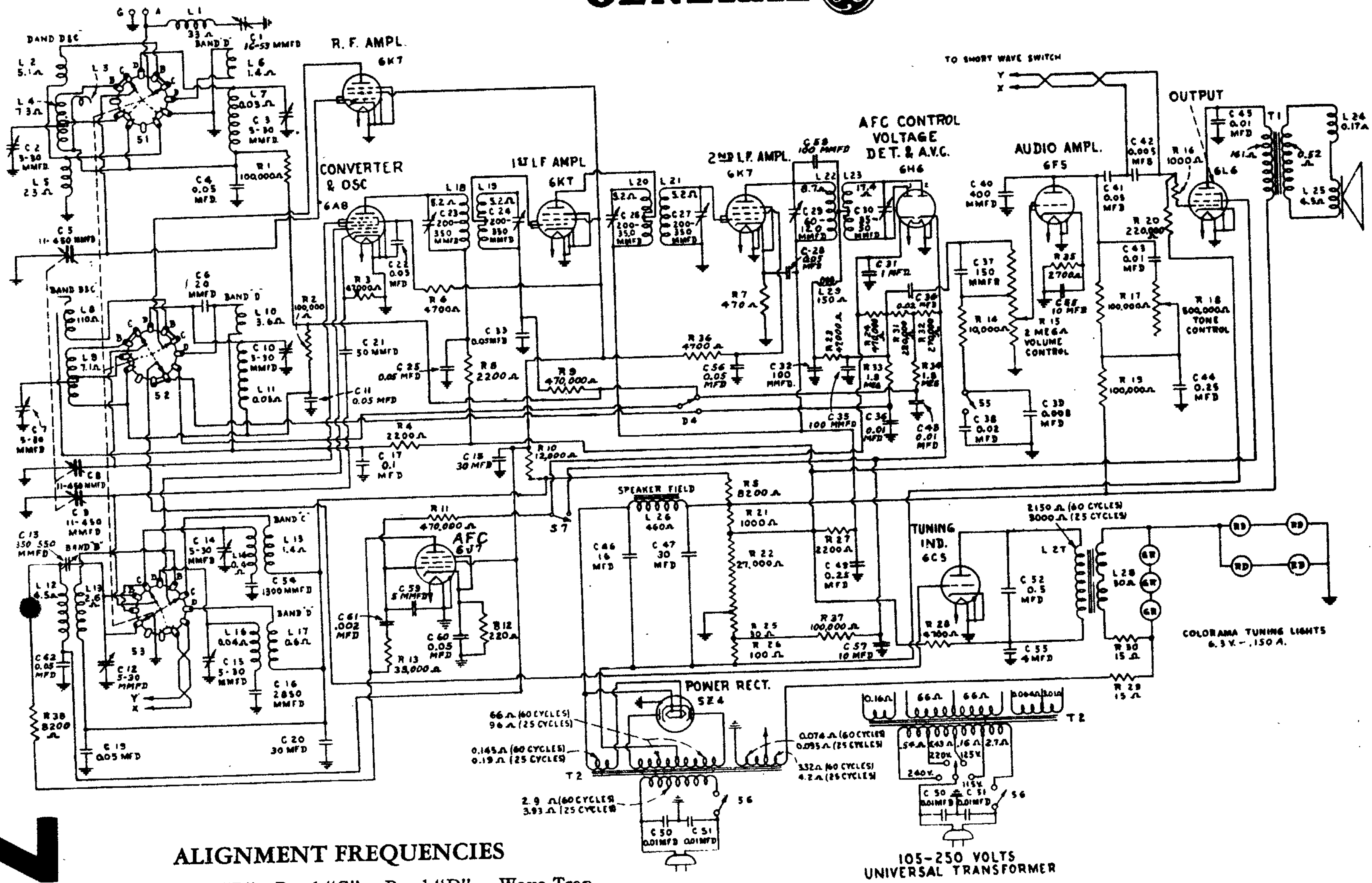
I.F. 465 KC.

General Electric Co. Models: A-83, A-85



I.F. 456 KC.

GENERAL ELECTRIC



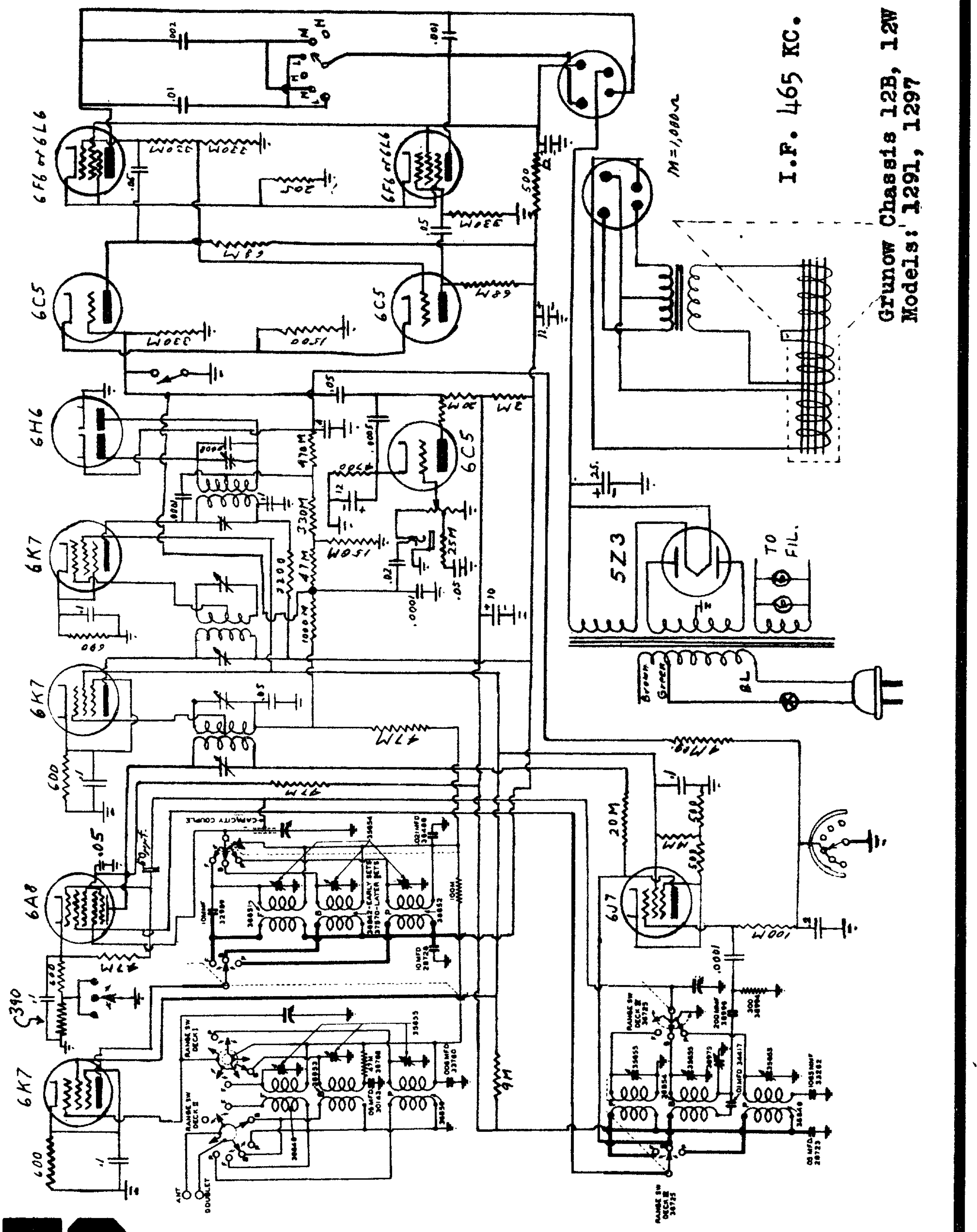
ALIGNMENT FREQUENCIES

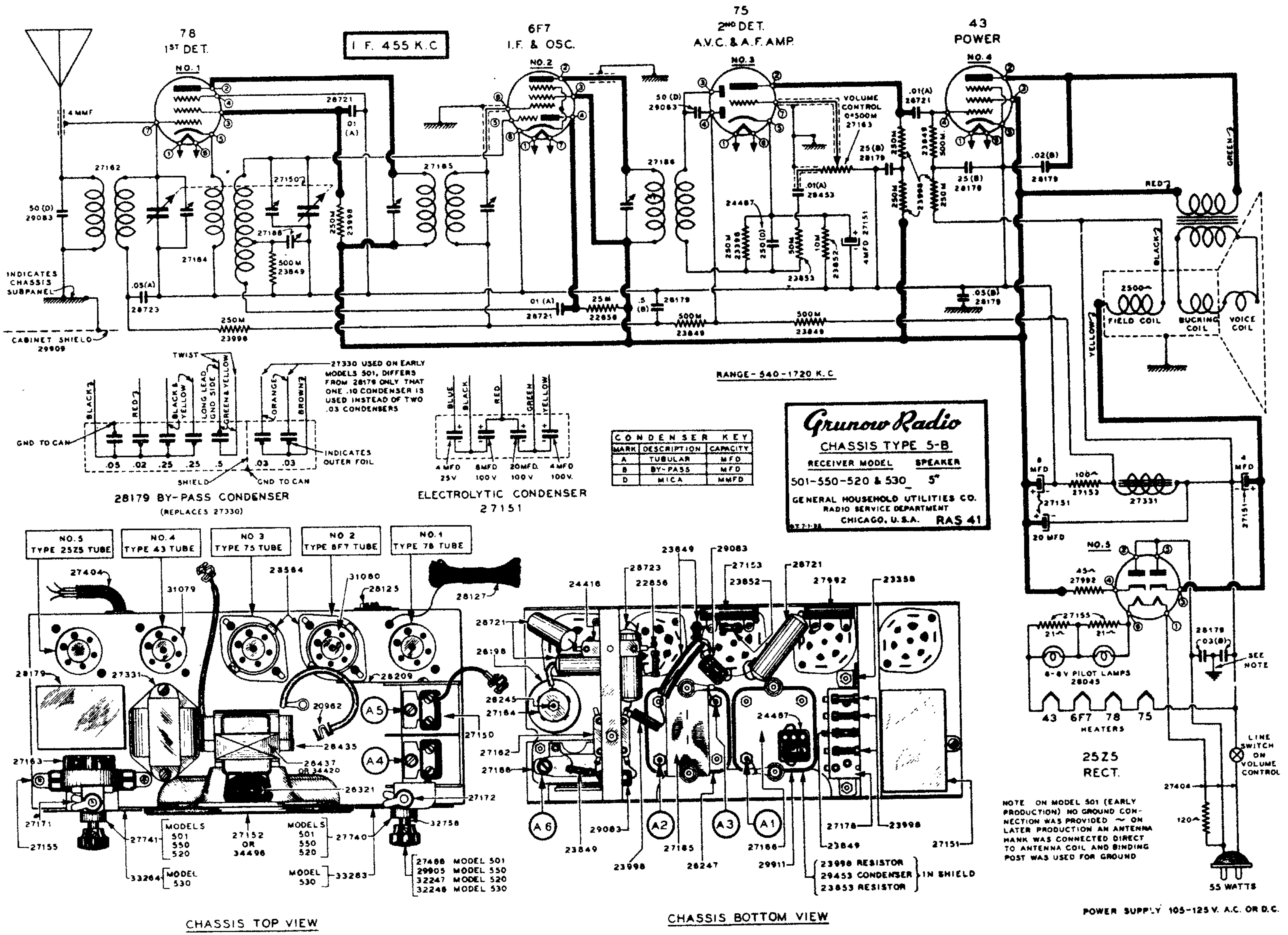
I.F.	Band "B"	Band "C"	Band "D"	Wave Trap
465 kc.	580 kc. 1500 kc.	5220 kc.	18,000 kc.	465 kc.

Radio Receivers, Models E-101, E-105 and E-106

I.F. 465 KC.

Grunow Chassis 12B, 12W
Models: 1291, 1297





27330 USED ON EARLY MODELS 501, DIFFERS FROM 28179 ONLY THAT ONE .10 CONDENSER IS USED INSTEAD OF TWO .03 CONDENSERS

28179 BY-PASS CONDENSER
(REPLACES 27330)

ELECTROLYTIC CONDENSER
27151

CONDENSER KEY		
MARK	DESCRIPTION	CAPACITY
A	TUBULAR	MFD
B	BY-PASS	MFD
D	MICA	MMFD

Grunow Radio
CHASSIS TYPE 5-B
RECEIVER MODEL SPEAKER
501-550-520 & 530 5"
GENERAL HOUSEHOLD UTILITIES CO.
RADIO SERVICE DEPARTMENT
CHICAGO, U.S.A. RAS 41

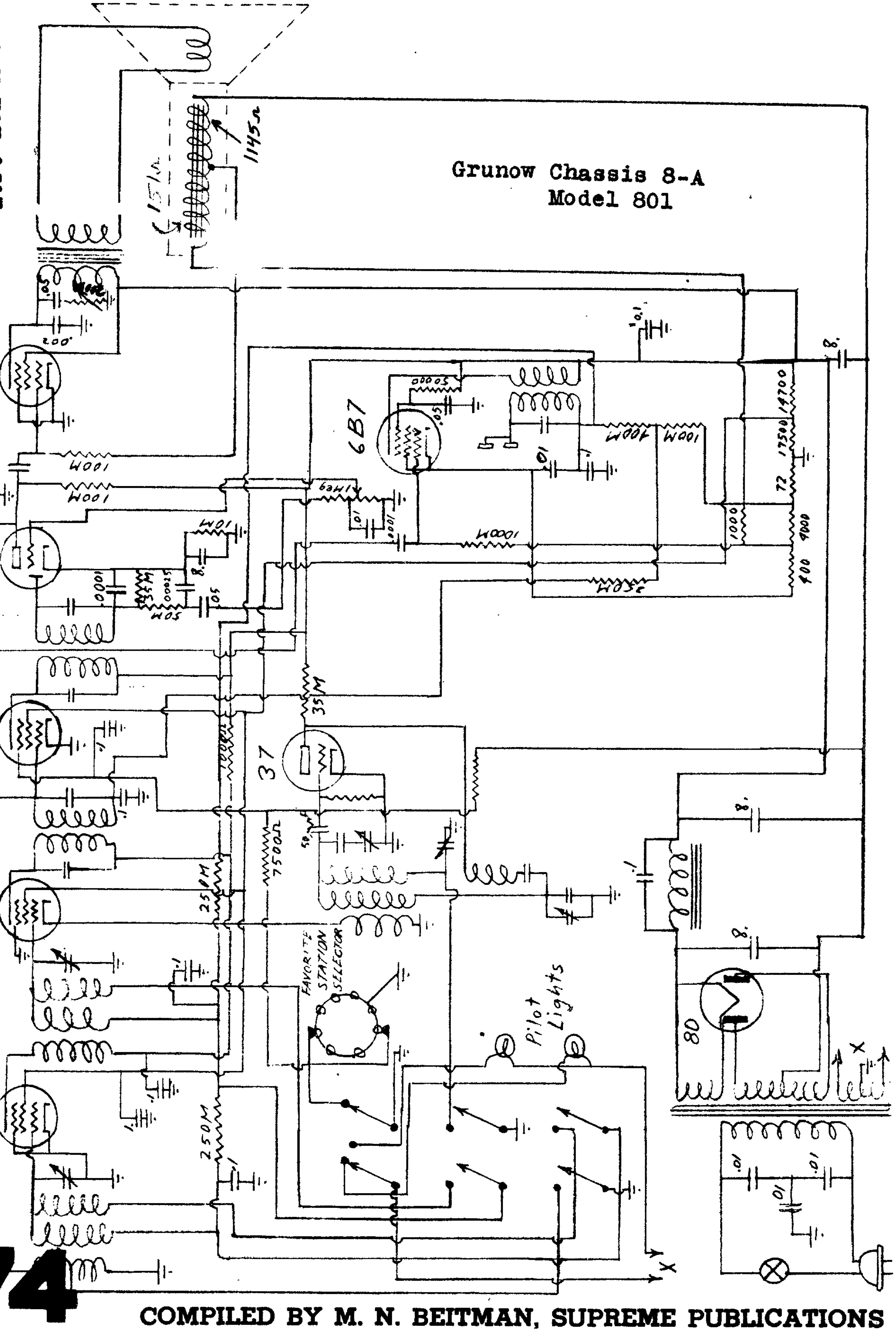
NOTE ON MODEL 501 (EARLY PRODUCTION) NO GROUND CONNECTION WAS PROVIDED ~ ON LATER PRODUCTION AN ANTENNA HANK WAS CONNECTED DIRECT TO ANTENNA COIL AND BINDING POST WAS USED FOR GROUND

CHASSIS TOP VIEW

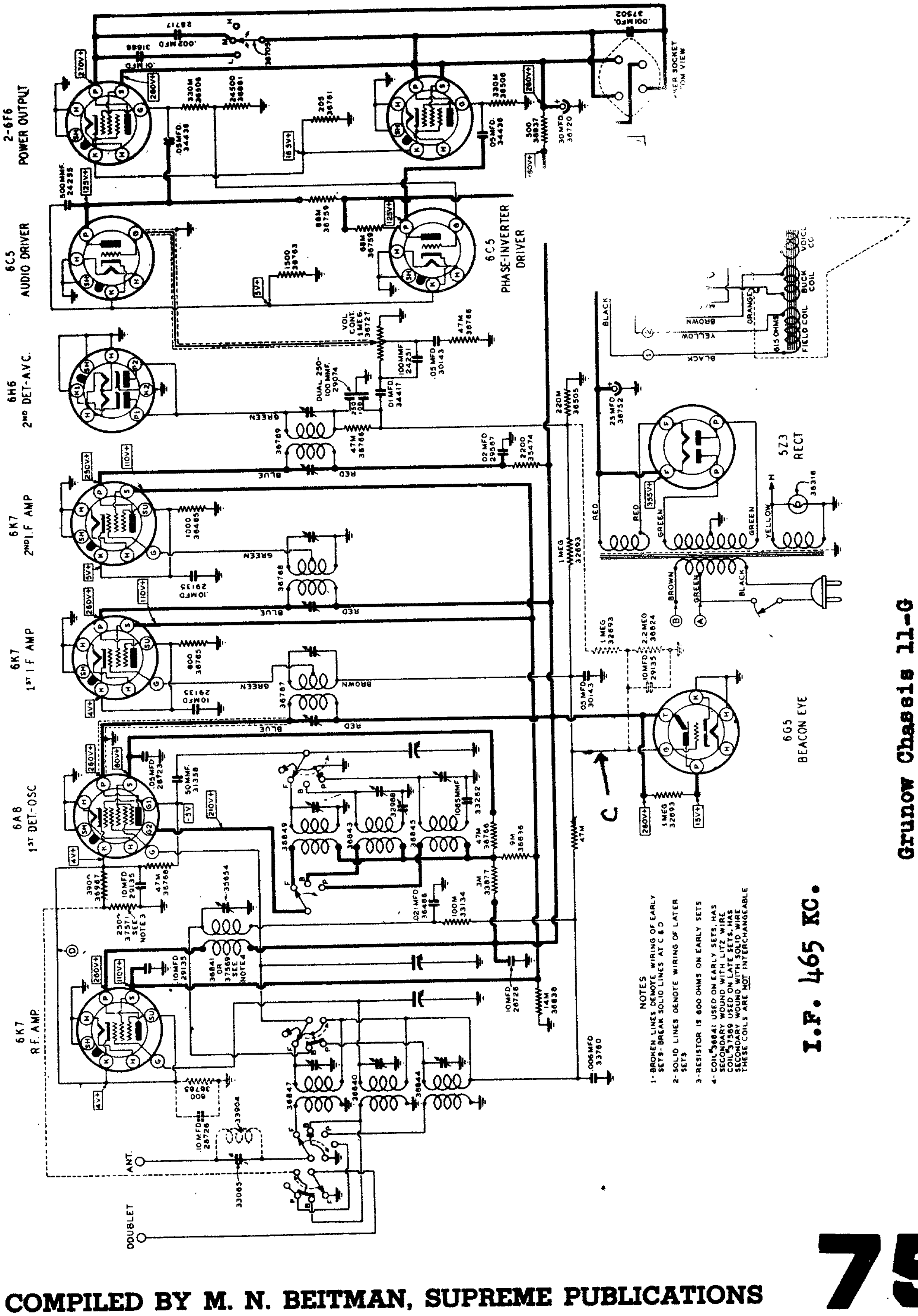
CHASSIS BOTTOM VIEW

I.F. 262 KC.

Grunow Chassis 8-A
Model 801



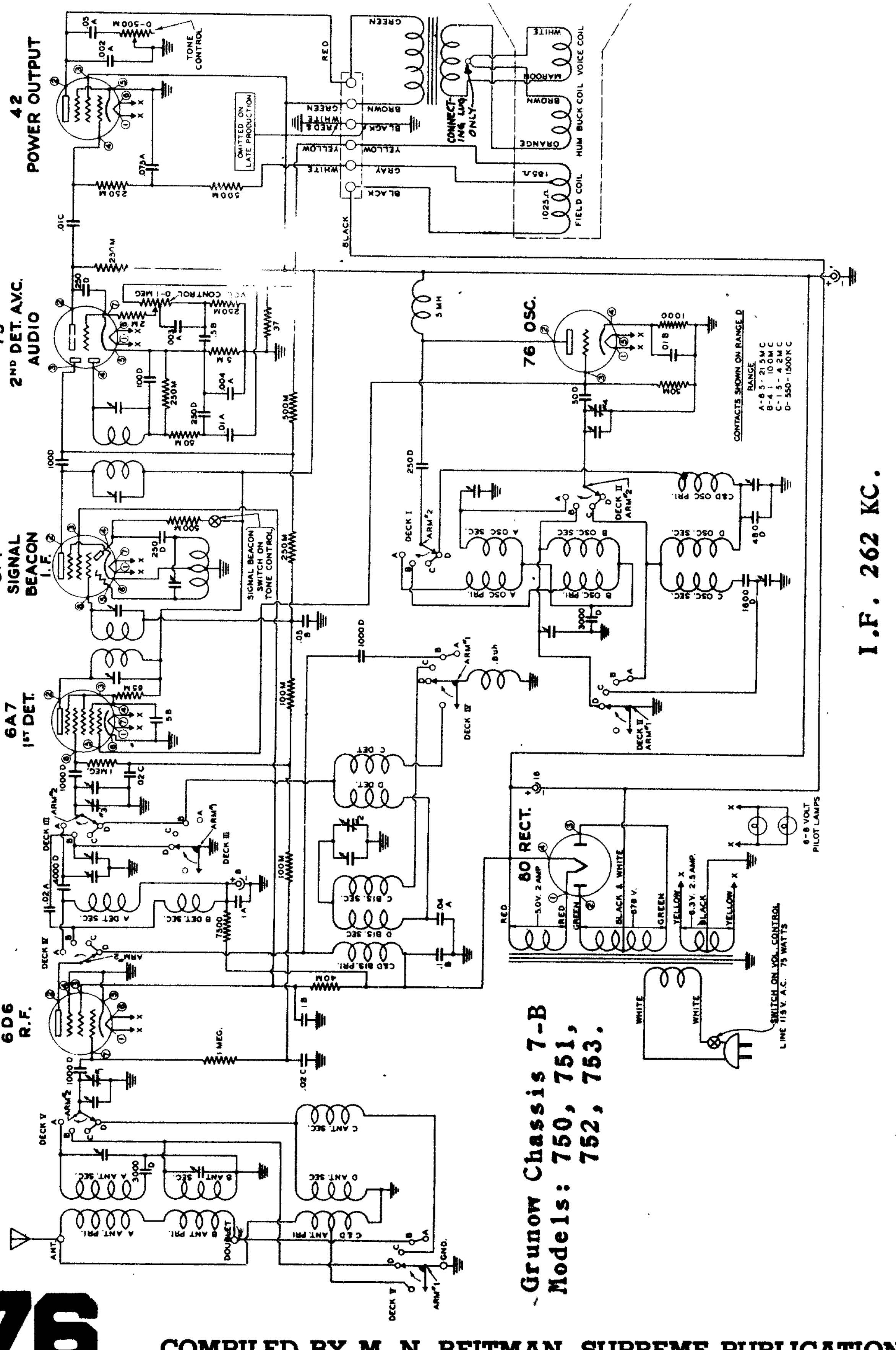
Grunow Chassis 11-G
Models: 1191, 1191B



I.F. 465 KC.

NOTES

1- BROKEN LINES DENOTE WIRING OF EARLY SETS- BREAK SOLID LINES AT C & D
2- SOLID LINES DENOTE WIRING OF LATER SETS
3- RESISTOR IS 600 OHMS ON EARLY SETS
4- COIL #36841 USED ON EARLY SETS, HAS SECONDARY WOUND WITH LITZ WIRE COIL #37569 USED ON LATE SETS, HAS SECONDARY WOUND WITH SOLID WIRE THESE COILS ARE NOT INTERCHANGEABLE



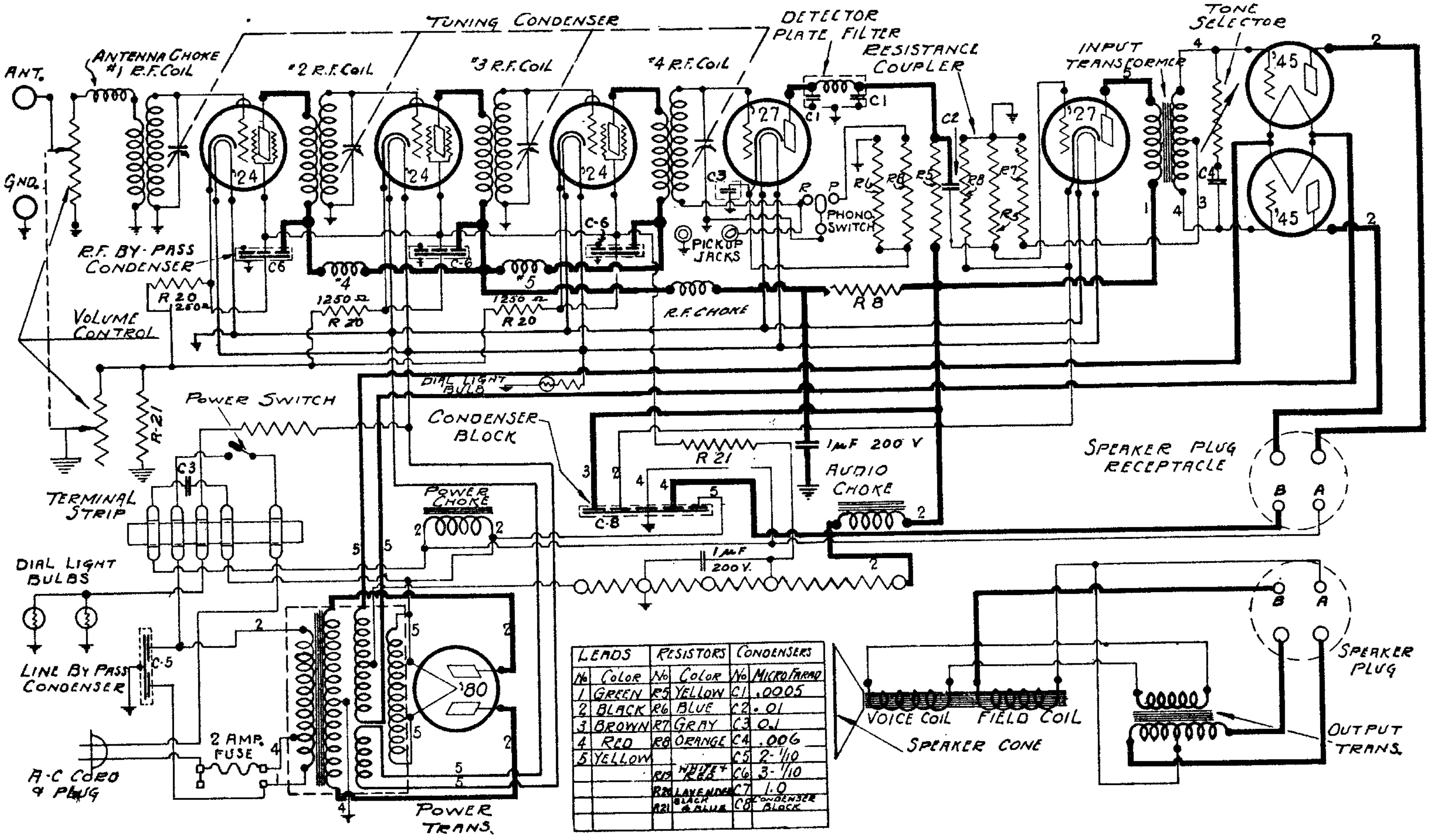
Grunow Chassis 7-B
Models: 750, 751, 752, 753.

I.F. 262 KC.

General Motors

MODELS 120, 130 and 140

CHASSIS MODELS "A" and "B"

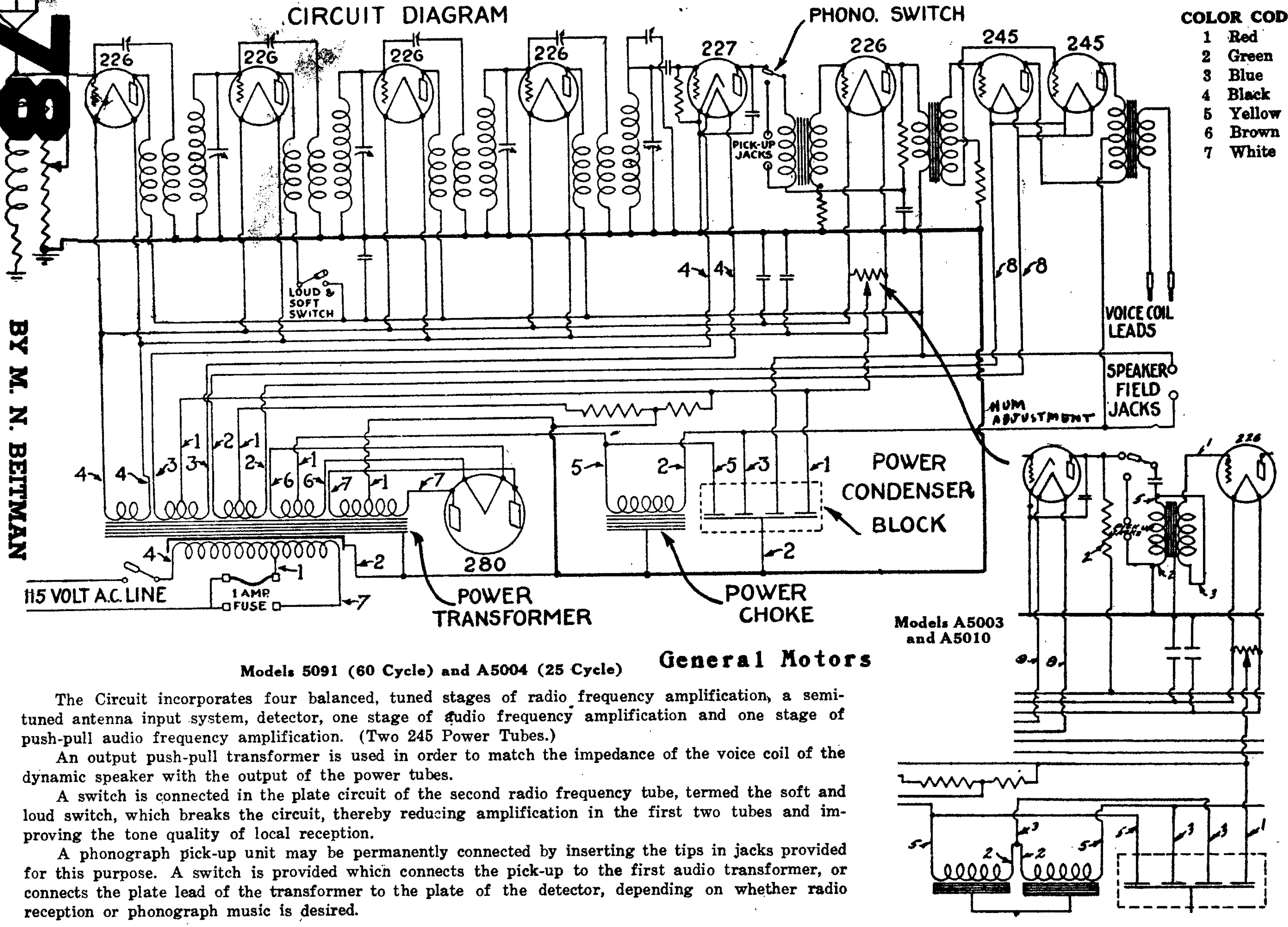


LEADS		RESISTORS		CONDENSERS	
No	Color	No	Color	No	MICRO FARAD
1	GREEN	R5	YELLOW	C1	.0005
2	BLACK	R6	BLUE	C2	.01
3	BROWN	R7	GRAY	C3	0.1
4	RED	R8	ORANGE	C4	.006
5	YELLOW			C5	2-1/10
		R19	WHITE + RED	C6	3-1/10
		R20	LAVENDER	C7	1.0
		R21	BLACK & BLUE	C8	CONDENSER BLOCK

Circuit Diagram of Chassis with Serial Numbers Between 29100A and 6200A; and 1700B and 1946B.

COLOR CODE

1	Red
2	Green
3	Blue
4	Black
5	Yellow
6	Brown
7	White



General Motors

Models 5091 (60 Cycle) and A5004 (25 Cycle)

The Circuit incorporates four balanced, tuned stages of radio frequency amplification, a semi-tuned antenna input system, detector, one stage of audio frequency amplification and one stage of push-pull audio frequency amplification. (Two 245 Power Tubes.)

An output push-pull transformer is used in order to match the impedance of the voice coil of the dynamic speaker with the output of the power tubes.

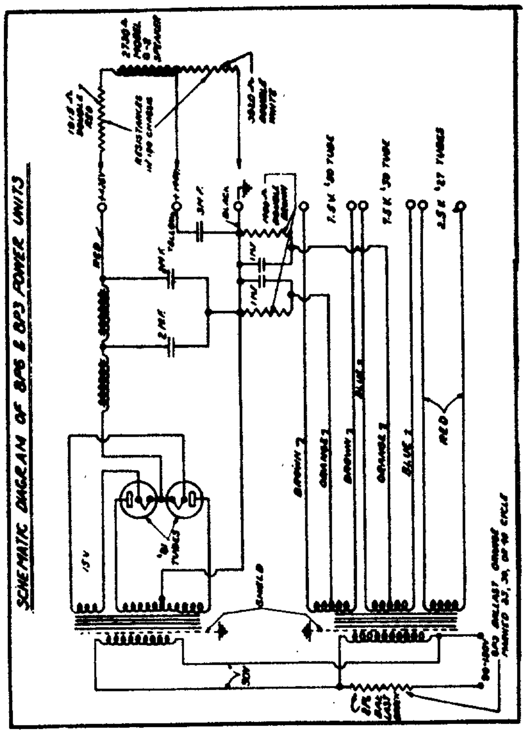
A switch is connected in the plate circuit of the second radio frequency tube, termed the soft and loud switch, which breaks the circuit, thereby reducing amplification in the first two tubes and improving the tone quality of local reception.

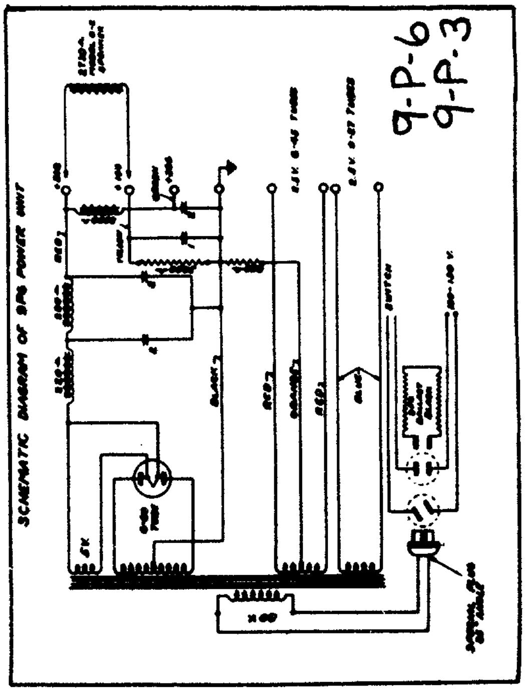
A phonograph pick-up unit may be permanently connected by inserting the tips in jacks provided for this purpose. A switch is provided which connects the pick-up to the first audio transformer, or connects the plate lead of the transformer to the plate of the detector, depending on whether radio reception or phonograph music is desired.

BY M. N. BEITMAN

Power Pack 8-P-6 and 8-P-3

Model 181—Chassis 180

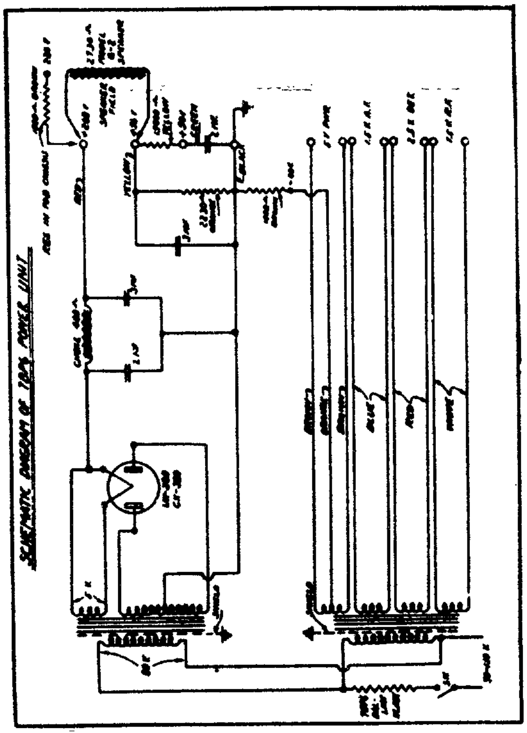




9-P-6
9-P-3

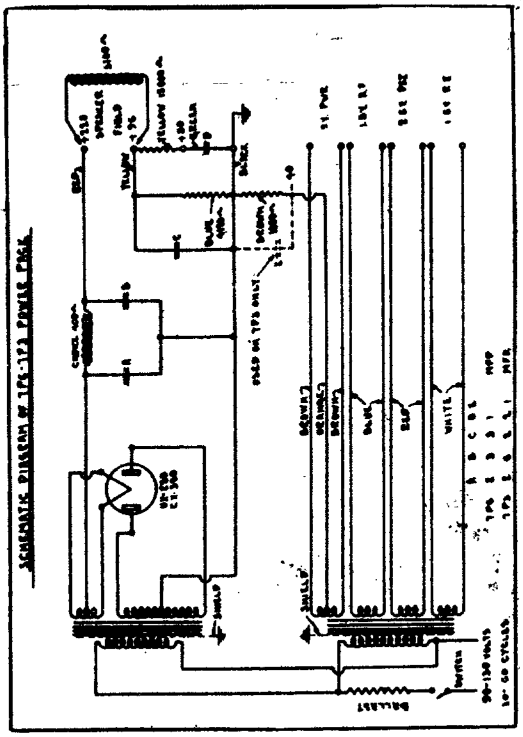
Power Pack 7-BP-6 and 7-BP-3

Models 71 and 72—Chassis 70-B



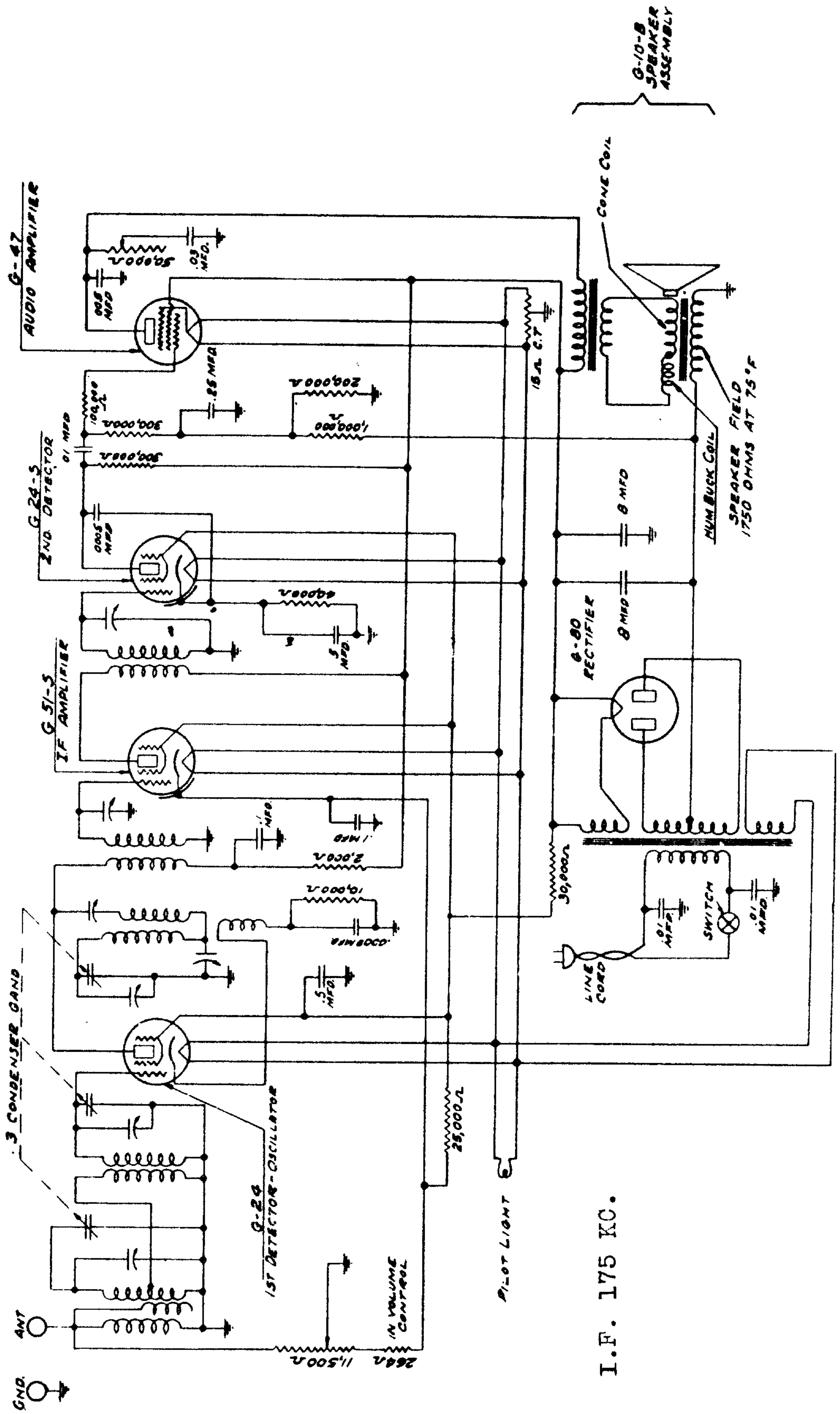
Power Pack 7-P-6 and 7-P

Models 71 and 72—Chassis 70

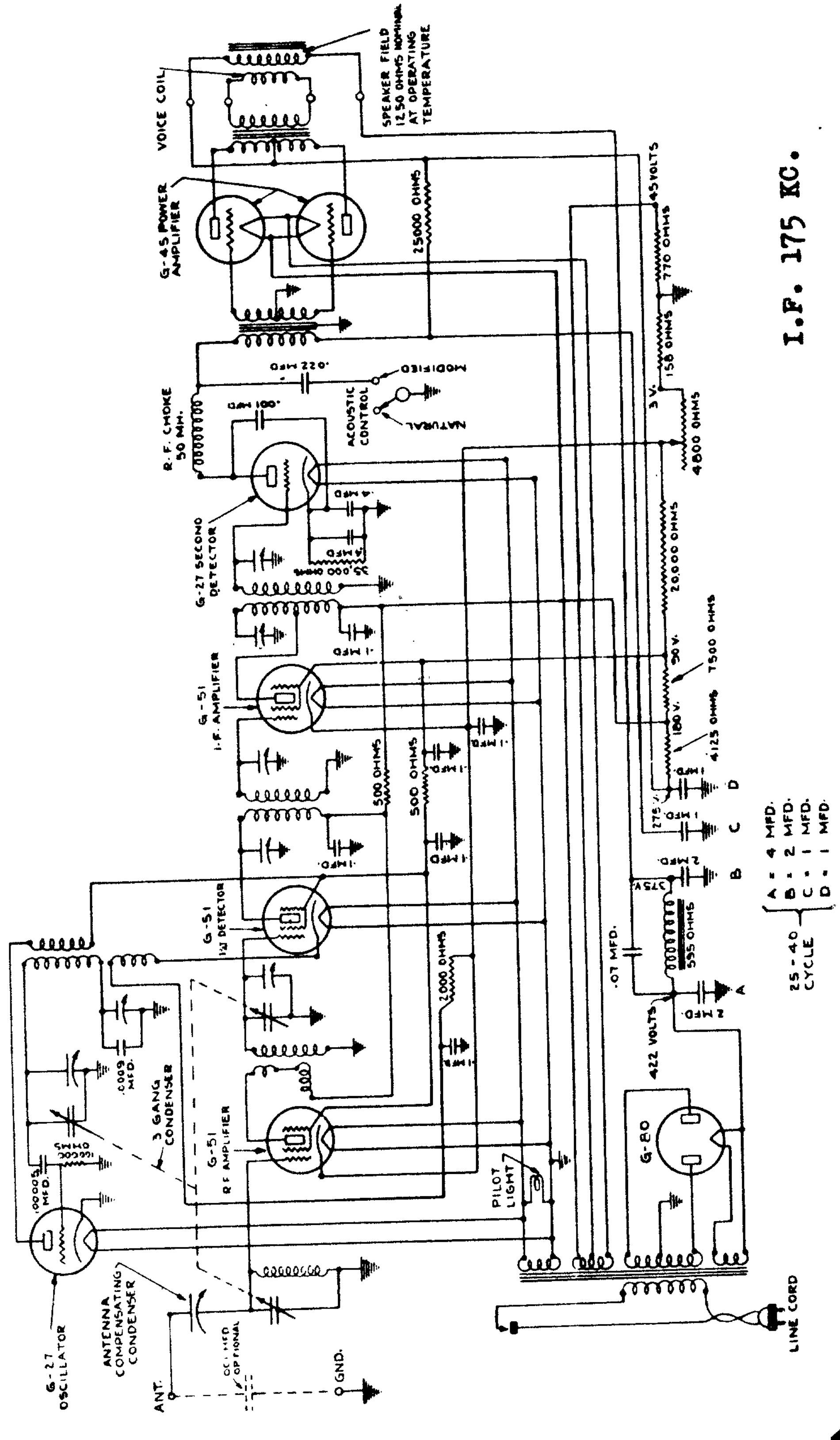


SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE RECEIVER

MODEL 15 AND 15-B CHASSIS (SERIAL NO. 65,150 AND OVER) 115 AND 230 VOLTS, 25-50 AND 50-60 CYCLES.
POWER REQD. -60 WATTS



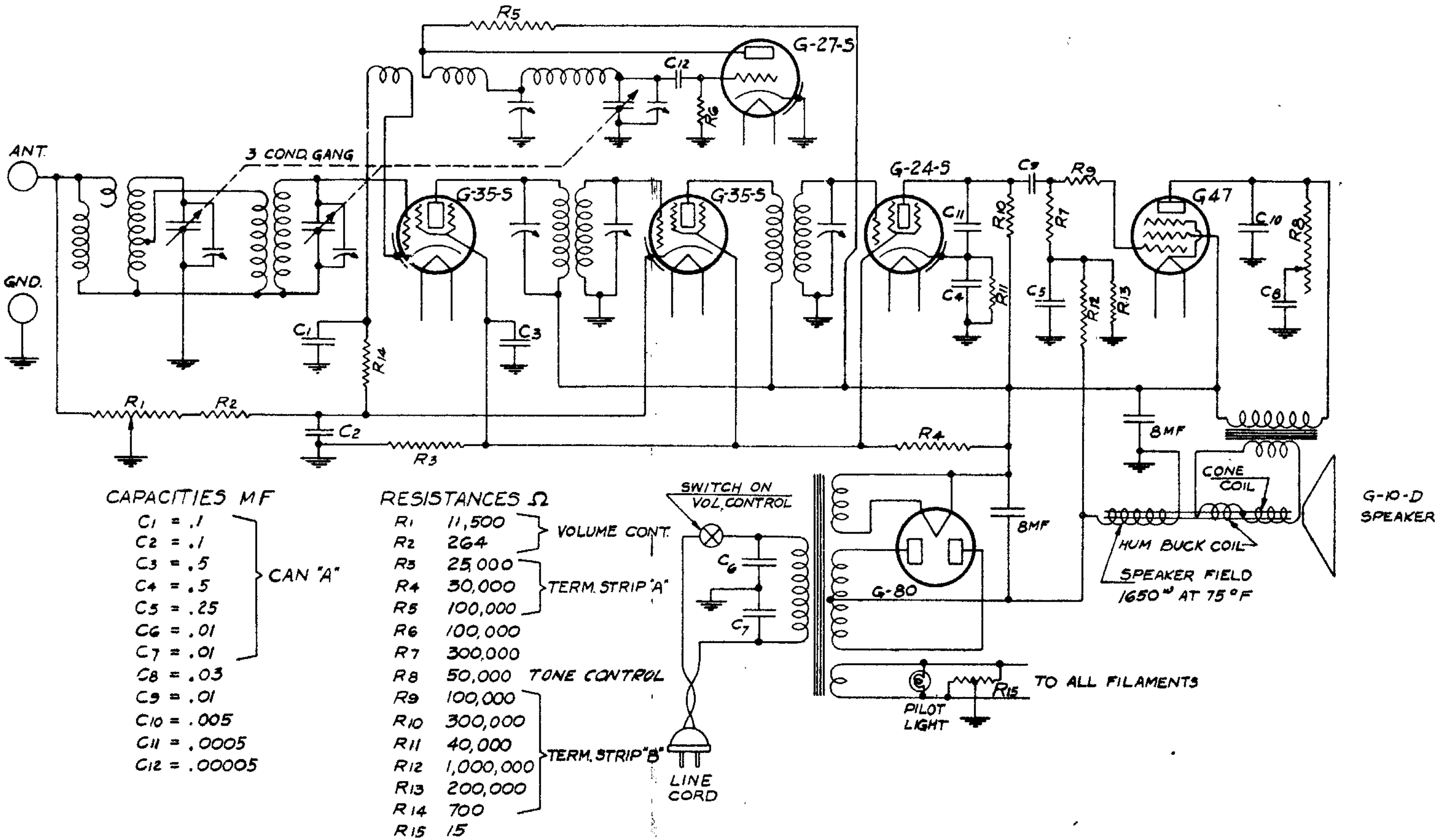
I.F. 175 KC.



SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE RECEIVER
MODEL 20 CHASSIS 110 AND 220 VOLTS - 50-60 AND 25-40 CYCLE

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE RECEIVER

MODEL 55 CHASSIS — 115 VOLTS 50-60 CYCLES 70 WATTS



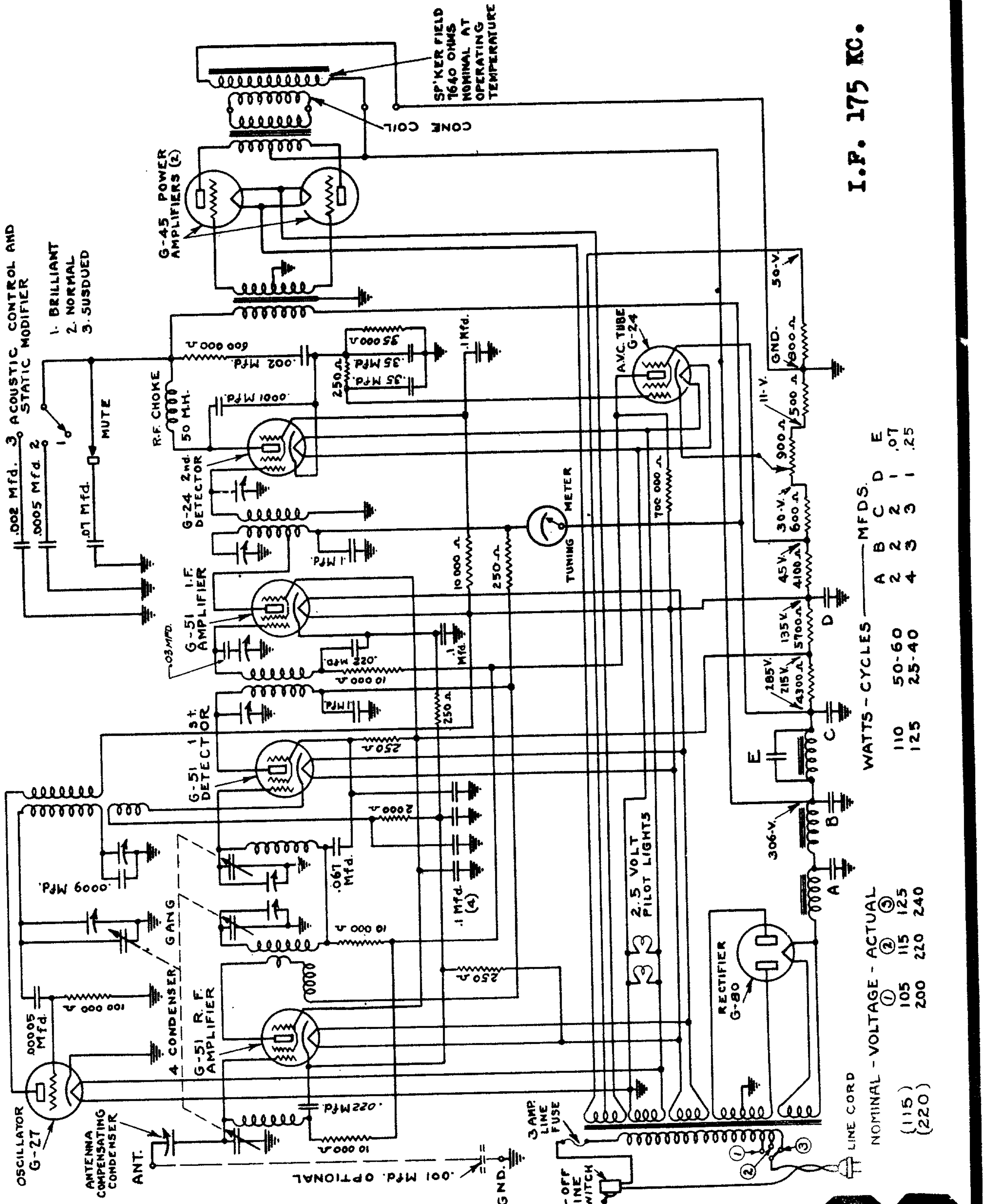
CAPACITIES MF		
C1	= .1	CAN "A"
C2	= .1	
C3	= .5	
C4	= .5	
C5	= .25	
C6	= .01	
C7	= .01	
C8	= .03	
C9	= .01	
C10	= .005	
C11	= .0005	
C12	= .00005	

RESISTANCES Ω		
R1	11,500	VOLUME CONT.
R2	264	
R3	25,000	TERM. STRIP "A"
R4	30,000	
R5	100,000	
R6	100,000	
R7	300,000	
R8	50,000	TONE CONTROL
R9	100,000	TERM. STRIP "B"
R10	300,000	
R11	40,000	
R12	1,000,000	
R13	200,000	
R14	700	
R15	15	

I.F. 175 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE AUTOMATIC VOLUME CONTROL RECEIVER - MODEL 60 CHASSIS 115 AND 220 VOLTS,



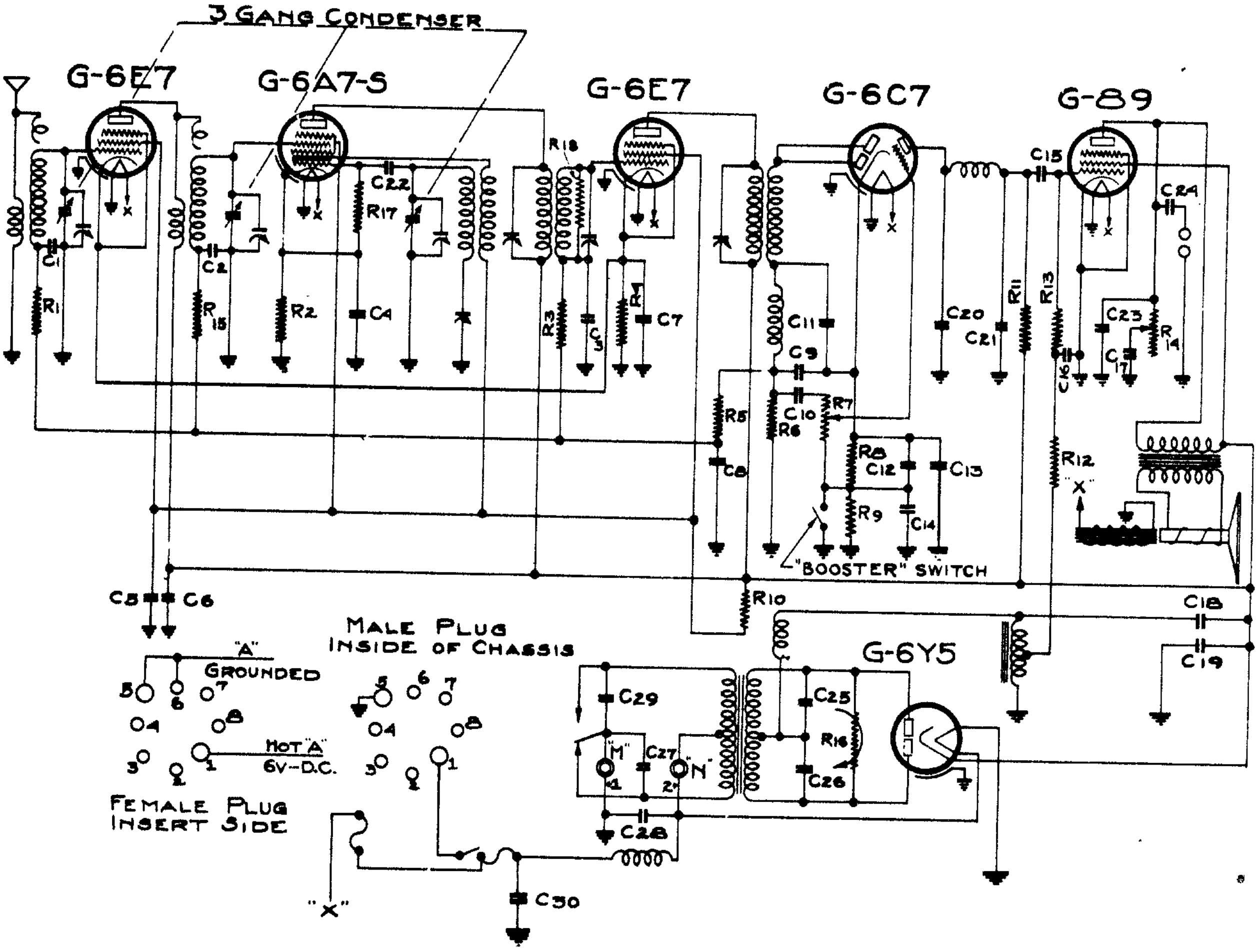
WATTS	CYCLES	A	B	C	D	E
110	50-60	2	2	2	1	.07
125	25-40	4	3	3	1	.25

NOMINAL	①	②	③
(115)	105	115	125
(220)	200	220	240

NOMINAL - VOLTAGE - ACTUAL

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

SCHEMATIC DIAGRAM OF MAJESTIC MODEL 66 AUTOMOBILE RECEIVER.



CONDENSERS

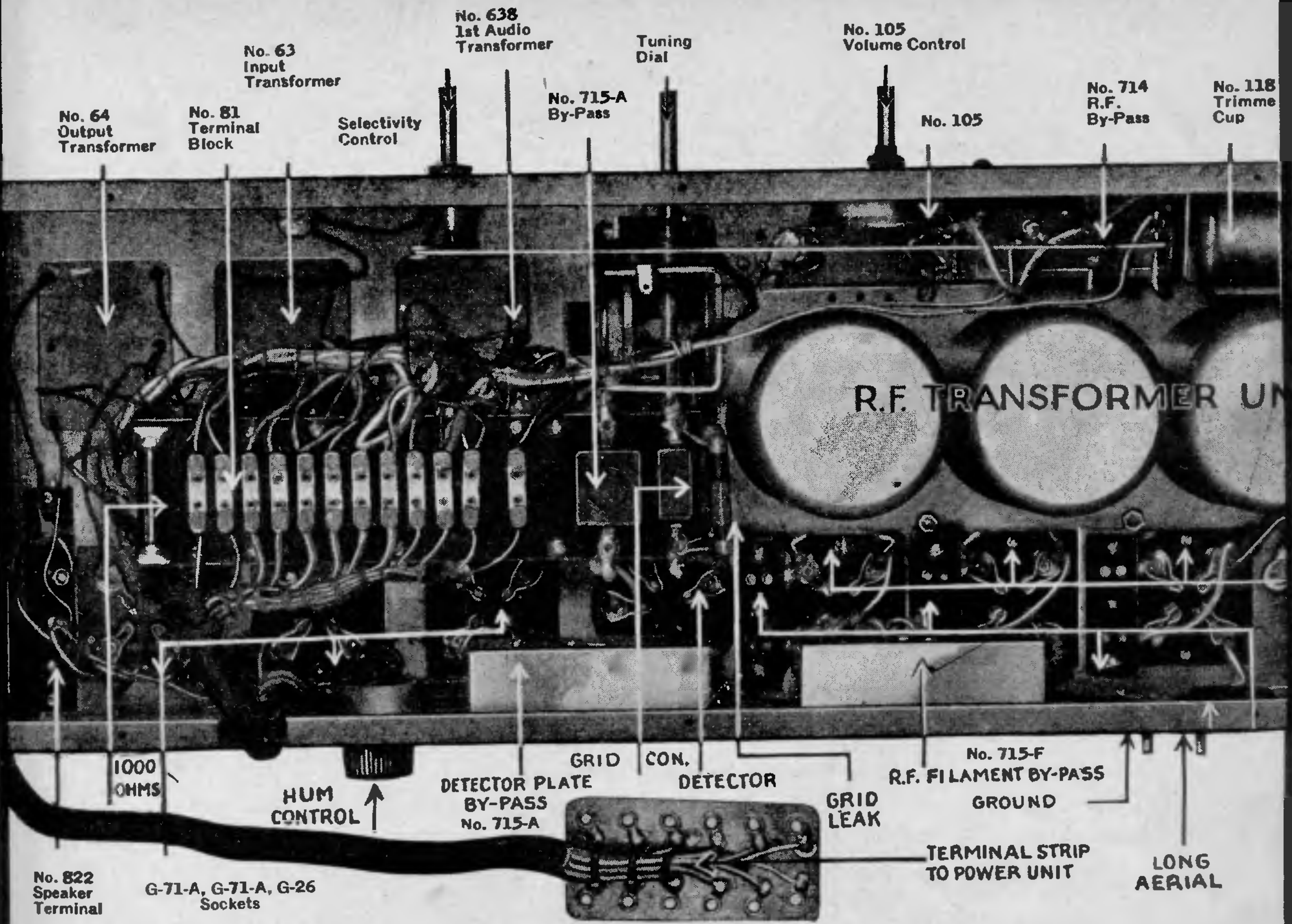
C1—.03
C2—.03
C3—.01
C4—.1
C5—.25
C6—.25
C7—.25
C8—.03
C9—.0005
C10—.03
C11—.0005
C12—10.
C13—.25
C14—.25
C15—.03
C16—.25
C17—.02
C18—8.0
C19—8.0
C20—.0005
C21—.0005
C22—.00025
C23—.005
C24—.1
C25—.008
C26—.008
C27—.1
C28—.5
C29—.1
C30—.5

RESISTORS

R1—300,000
R2—250
R3—300,000
R4—400
R5—300,000
R6—100,000
R7—200,000
R8—2,500
R9—10,000
R10—10,000
R11—200000
R12—250000
R13—250000
R14—50,000
R15—300,000
R16—500,000 GLOBAR
R17—50,000
R18—1,000,000

—NOTE—
WHEN A+ IS GROUNDED VIBRATOR LEAD #1 (BLUE) SHOULD CONNECT TO TERMINAL "M" (VIBRATOR ARMATURE) AND LEAD #2 (BLACK) SHOULD CONNECT TO TRANS. PRIMARY CENTER TAP (TERMINAL "N") WHEN A- IS GROUNDED REVERSE ABOVE CONNECTIONS.

I.F. 175 KC.



CHASSIS 70 and 70-B

Models 71 and 72

TUBES

R. F.	G-26	1st A. F.	G-26
R. F.	G-26	P. P. Ampl.	G-71-A
R. F.	G-26	P. P. Ampl.	G-71-A
Det.	G-27	G-80 Rect.	Power Unit

THE CIRCUIT

Tuned Radio Frequency. Built upon unit assembly plan.

Chassis. Has the 3 A.F. transformers, the volume control and input circuit, sockets, balancing condensers and by-pass condensers.

Tuning Condenser. 4 gang variable condenser, dial lamp and dial.

R.F. Transformers. Entirely Contained in shield, with leads that connect to various parts.

Terminal Strip. Includes power cable, grid condenser, grid leak, detector plate R.F. by-pass condenser, 2 center tapped resistances and 2 bias resistance units.

Wiring Cable. Accomplishes the internal wiring of receiver.

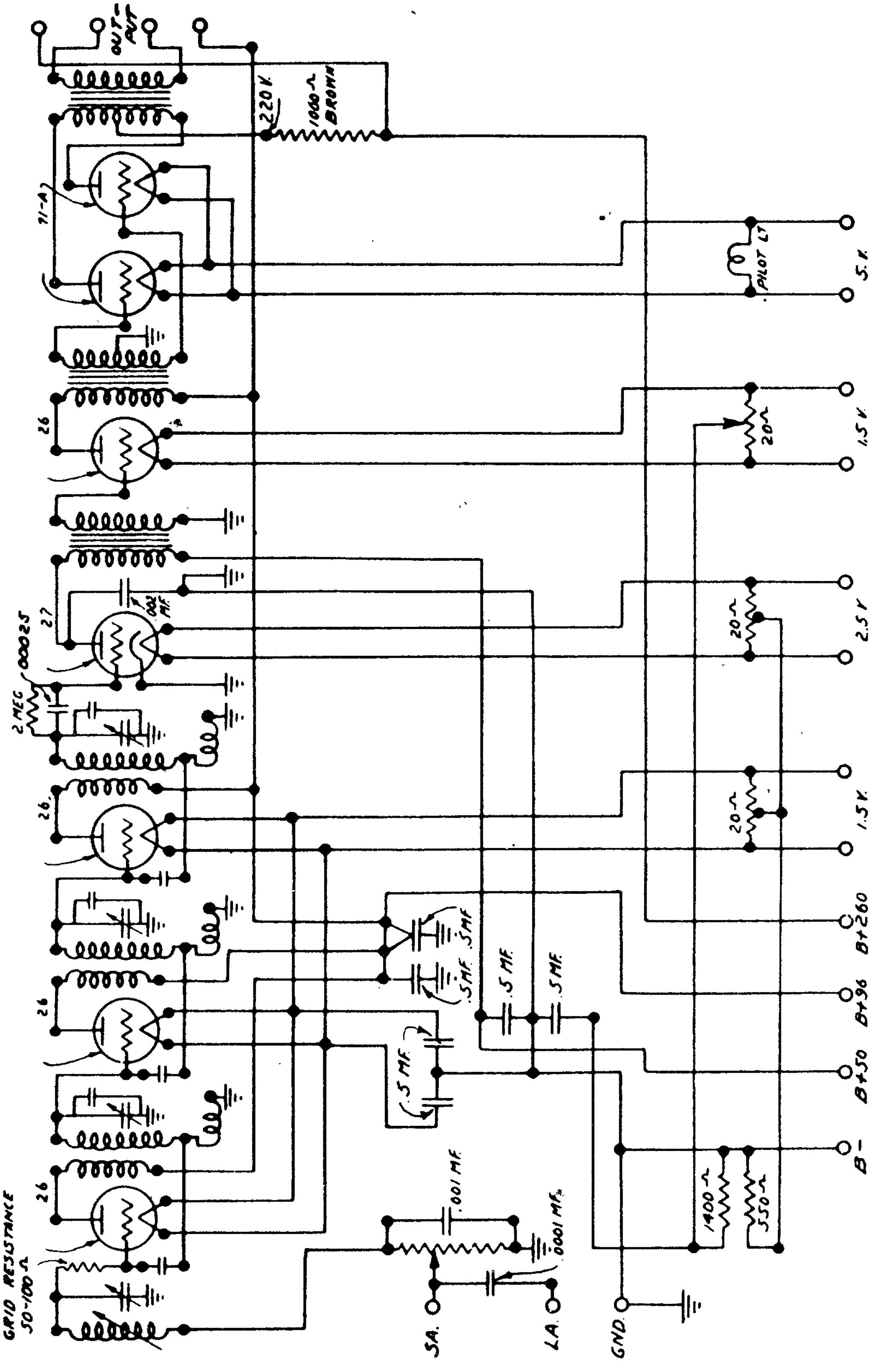
INPUT SYSTEM AND VOLUME CONTROL

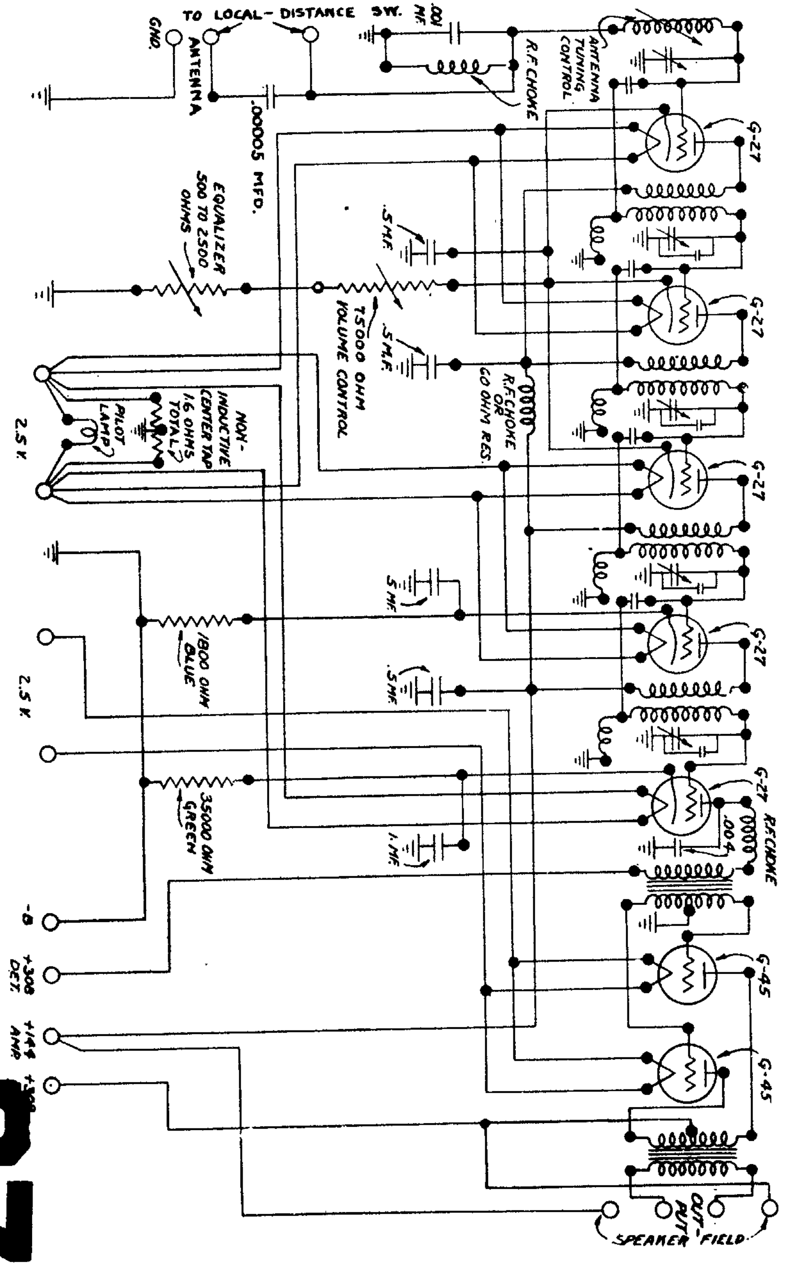
The volume control is effected in the input circuit, making a smooth control due to the fact that R.F. amplifiers are functioning at maximum efficiency at any degree of volume. A potentiometer is placed across the .001 condenser with the movable arm attached to the antenna and controls signal voltage impressed across this condenser.

SELECTIVITY CONTROL

Integral with the input system is the antenna trimmer, which operates to vary the inductance of the antenna input coil and permits adjusting the input circuit to exact resonance with the other 3 tuned circuits.

SCHEMATIC DIAGRAM FOR MODEL 70B MAJESTIC RECEIVER





CHASSIS 90

Models 91, 92

METHOD OF BIASING

Grid Biasing of the various tubes is accomplished by grounding the grids and applying a positive potential to the cathodes of three tubes.

The biasing of the first, second and third R.F. Tubes is accomplished by the use of a variable resistance from 500 to 2,500 Ohm, which is in series with the volume control resistance and is known as the Equalizer. It is mounted on the rotor shaft of the variable gang condenser and the movable arm turns as the rotor plates are moved. A potential of from 8 to 15 Volt is applied, depending on the tuning dial frequency. The Equalizer is adjusted for a resistance of 1,500 Ohm at 1,000 kilocycles, 500 Ohm at 550 kilocycles, 2,500 Ohm at 1,500 kilocycles, with 15% allowable variation for the last two measurements. The equalizer adjustment arm is secured by a set screw to the back of the gang condenser frame.

The position and tightness of this arm is important. Make sure that the set screw holding the Equalizer Shaft to the gang condenser just inside the gang frame is against the flat portion of the equalizer shaft.

BIASING	RESISTOR	BIAS VOLTAGE
4th R. F. Stage	1,800 Ohm	9
Detector	35,000 Ohm	32
45	800 Ohm	On Power Unit Terminal Strip

ALIGNING AND BALANCING

Make certain that resonance is obtained for each stage, using both Master Tuning Control and Trimmer. When using dummy tube for balancing, place shield over it, to include capacity effect of shield. A dummy tube having a Grid to Plate of appr. 3.4 m.m.f. is suggested, as this capacity is used when receiver was originally balanced. PROCEDURE OF BALANCING IS THE SAME AS FOR CHASSIS 70, 70B

ANTENNA SWITCH

To prevent distortion of tone from close-by powerful transmitters on moderately long antenna, snap switch to "Local" position. Use "Distance" position for stations with less powerful reception.

POWER UNIT

The Power Unit 9-P-6 and 9-P-3 is described on Page 79.

INPUT CIRCUIT

On early production models, a fixed condenser of .0001 MFD. capacity is used, on later production a condenser of .00005 MFD. for the input circuit.

TABLE OF VOLTAGES

The voltage readings given below were taken with the receiver turned to 550 Kilocycles, and the volume control set at maximum. When taking comparative readings, be certain that receiver is tuned to 550 kilocycles and volume control is set at maximum.

Tube		A	B	C	Cathode	Normal Plate
Purpose	Type	Volts	Volts	Volts	Volts	M.A.
1st R. F.	27	2.35	130	8	8	5.5
2nd R. F.	27	2.35	130	8	8	5.5
3rd R. F.	27	2.35	130	8	8	5.5
4th R. F.	27	2.35	130	9	9	5.0
Detector	27	2.35	270	30	30	1
Power	45	2.45	250	50	..	32
Power	45	2.45	250	50	..	32
Rectifier	80	...	...	..	..	..

Line Voltage 115 A. C.

CHASSIS 90-B

Models 90, 91, 93

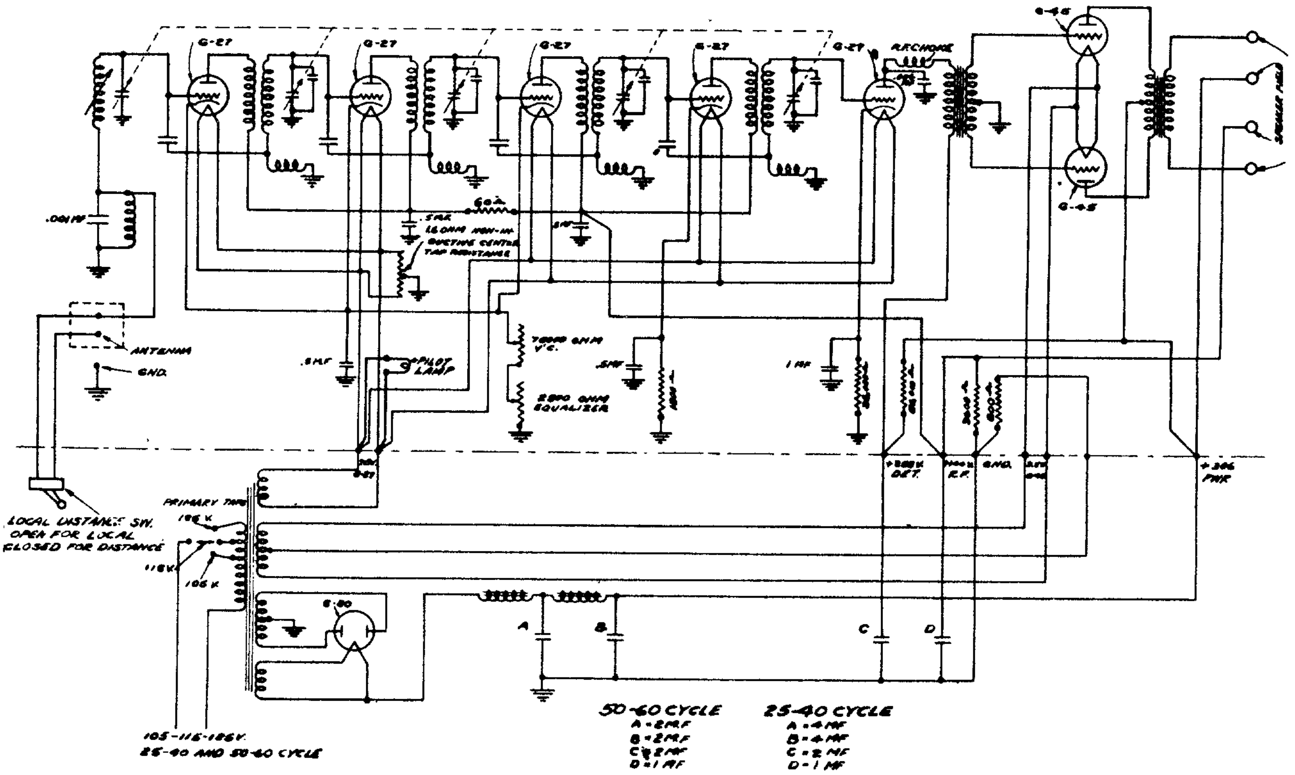


TABLE OF VOLTAGES

The voltage readings given below were taken with the receiver turned to 550 kilocycles, and the volume control set at maximum. When taking comparative readings, be certain that receiver is tuned to 550 kilocycles and volume control is set at maximum.

Tube Purpose	Type	Filament Voltage	Plate Voltage	Grid Bias Voltage	Cathode Volts	Normal Plate Milli-amperes
1st R. F.	G-27	2.35	130	8	8	5.5
2nd R. F.	G-27	2.35	130	8	8	5.5
3rd R. F.	G-27	2.35	130	8	8	5.5
4th R. F.	G-27	2.35	130	9	9	5.0
Detector	G-27	2.35	230	25	25	.8
Power	G-45	2.45	250	50	..	32
Power	G-45	2.45	250	50	..	32
Rectifying	G-80	...	...	..	..	..

Line Voltage 115 A. C. on 115 volt tap.

ANTENNA SWITCH

To prevent distortion of tone from close-by powerful transmitters on moderately long antenna, snap switch to "Local" position. Use "Distance" position for stations with less powerful reception.

ADJUSTMENT FOR LINE VOLTAGE

On the left side, directly in front of the G-80 Socket, you will note a small plate. Determine with A. C. Voltmeter or from local power company the average line voltage.

Upon removing the adjustment plate, you will find three taps, marked 105 Volts, 115 Volts and 125 Volts.

THE CIRCUIT

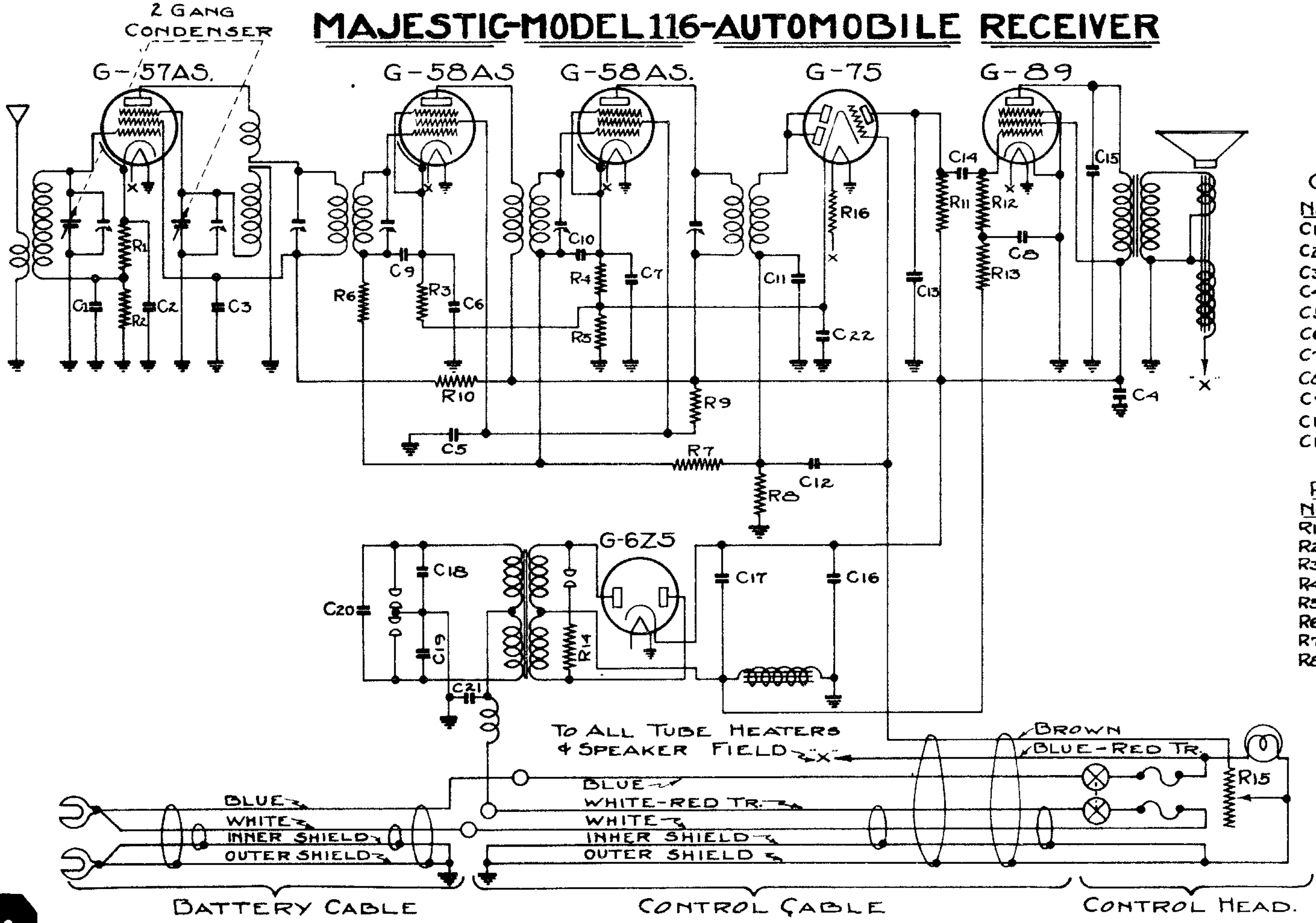
The T.R.F. balanced circuit is employed with a single control, five gang condenser. The detector output is fed directly to the push-pull audio stage. The selectivity control or trimmer functions by varying the inductance of the antenna input coil and permits adjustment in the input circuit to exact resonance with the other turned circuits.

The R. F. Unit assembly (No. 1434) includes the radio frequency transformers with shields, the R. F. Sockets, the balancing condensers and the radio frequency, cathode and plate By-Pass Condensers. The terminal strip includes one 800 Ohm, one 1,800 Ohm and one 50,000 Ohm Resistor, being the bias resistors of the Power Tubes, the 4th R.F. Tube and the Detector Plate resistance respectively.

POWER SUPPLY

Composed of Power Transformer, a Choke Unit and Condenser Bank for the filter system. The resistors (800 and 3,600 Ohm) are placed on terminal strip. A Type G-80 Rectifying tube is used.

MAJESTIC-MODEL 116-AUTOMOBILE RECEIVER



CONDENSER VALUES

NO.	MFD.	NO.	MFD.
C1	.1	C12	.01
C2	.03	C13	.005
C3	.03	C14	.01
C4	.25	C15	.005
C5	.5	C16	8.0
C6	.1	C17	8.0
C7	.1	C18	.1
C8	.1	C19	.1
C9	.03	C20	.5
C10	.01	C21	1.0
C11	.0005	C22	.01

RESISTOR VALUES

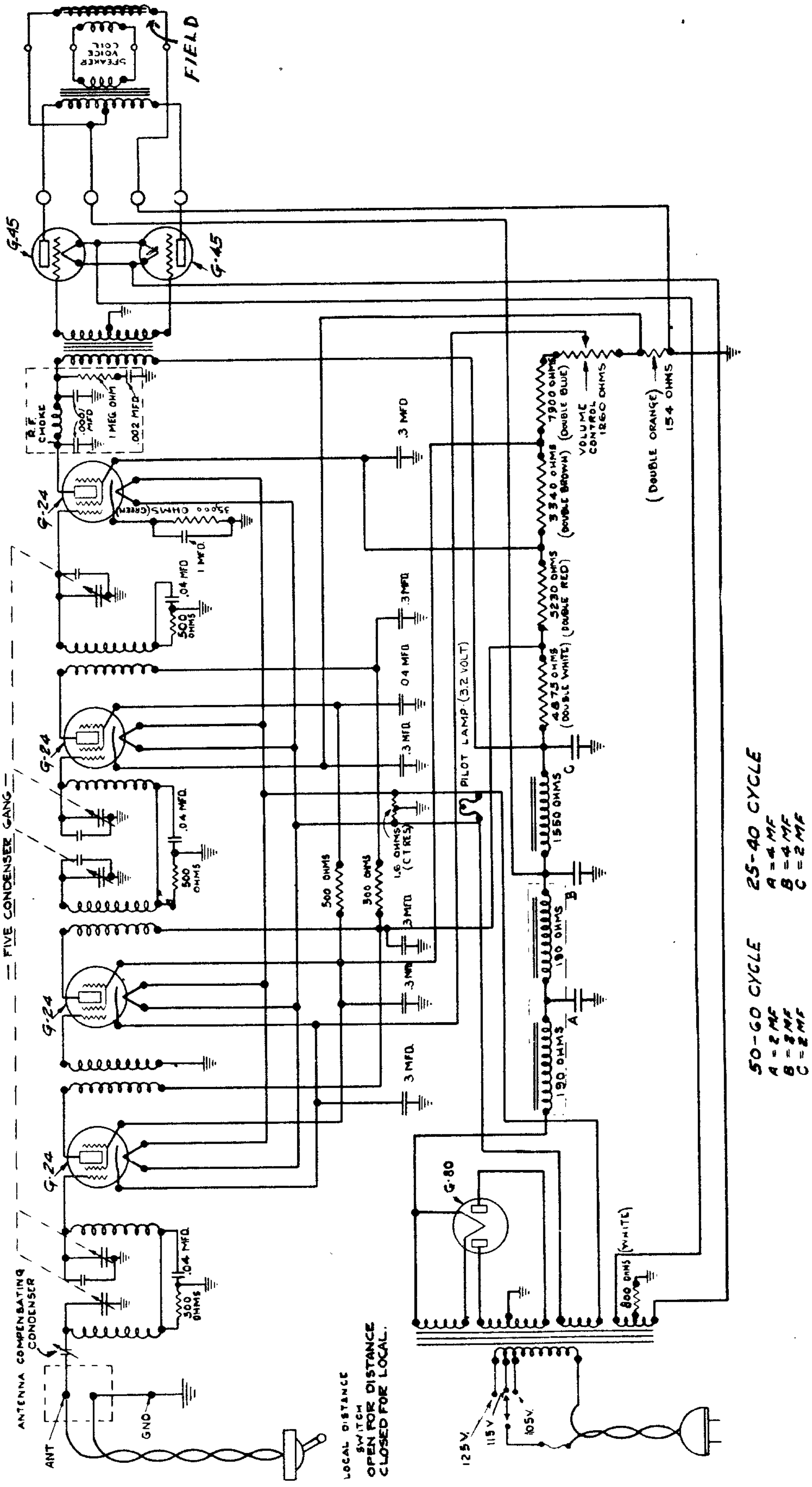
NO.	OHMS	NO.	OHMS
R1	300	R9	30,000
R2	3000	R10	15000
R3	200	R11	99,000
R4	200	R12	250,000
R5	150	R13	250,000
R6	99,000	R14	40,000
R7	500,000	R15	250,000 VOLUME CONTROL
R8	99,000		

R16 — 1.5 OHMS.

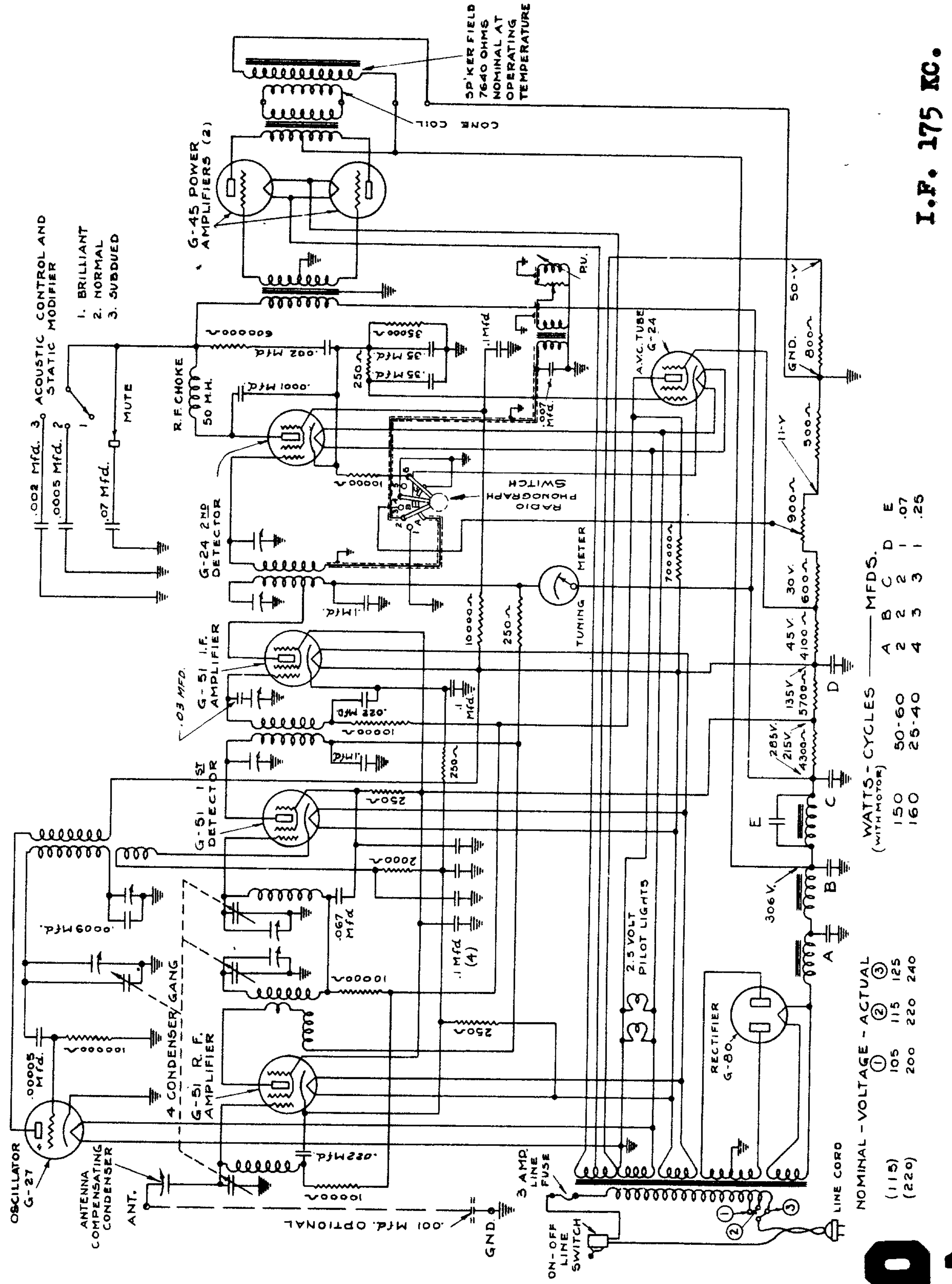
I.F. 175 KC.

SCHEMATIC DIAGRAM of MAJESTIC SUPER SCREEN GRID RECEIVER

MODEL 130-A CHASSIS 25-40 & 50-60 CYCLE



SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE AUTOMATIC VOLUME CONTROL RECEIVER AND ELECTRIC PHONOGRAPH COMBINATION MODEL 160 CHASSIS 115 AND 220 VOLTS, 25-40 AND 50-60 CYCLES.



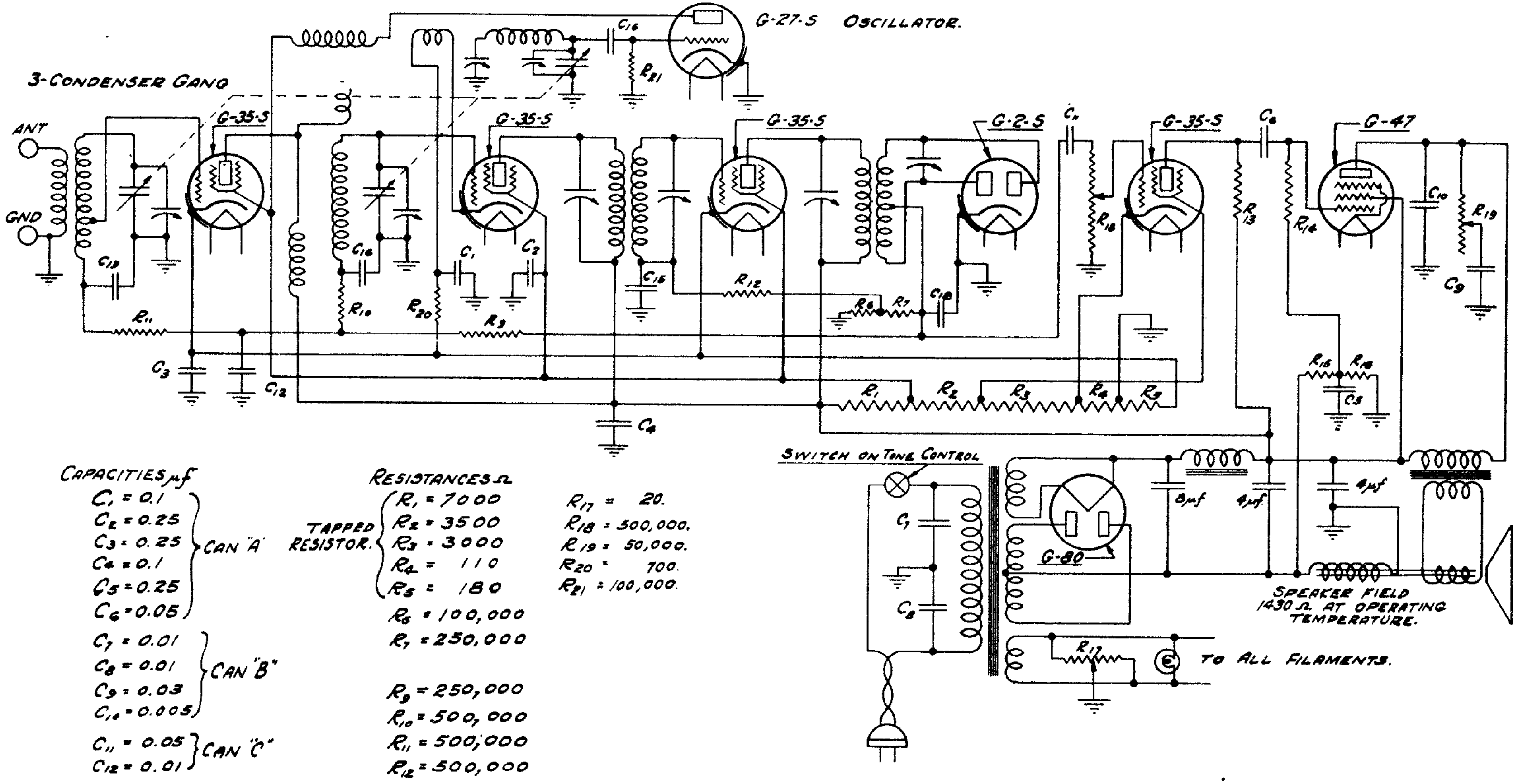
WATTS (WITH MOTOR)	CYCLES	A	B	C	D	E
150	50-60	2	2	2	1	.07
160	25-40	4	3	3	1	.25

MFDS.

NOMINAL	①	②	③
(115)	105	115	125
(220)	200	220	240

VOLTAGE - ACTUAL

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE AUTOMATIC VOLUME CONTROL RECEIVER — MODEL 200 CHASSIS.



CAPACITIES μf

$C_1 = 0.1$
$C_2 = 0.25$
$C_3 = 0.25$ CAN "A"
$C_4 = 0.1$
$C_5 = 0.25$
$C_6 = 0.05$
$C_7 = 0.01$
$C_8 = 0.01$ CAN "B"
$C_9 = 0.03$
$C_{10} = 0.005$
$C_{11} = 0.05$ CAN "C"
$C_{12} = 0.01$
$C_{13} = 0.01$
$C_{14} = 0.01$
$C_{15} = 0.01$
$C_{16} = 0.00005$

$C_{18} = 0.0005$

RESISTANCES Ω

TAPPED RESISTOR.
$R_1 = 7000$
$R_2 = 3500$
$R_3 = 3000$
$R_4 = 110$
$R_5 = 180$
$R_6 = 100,000$
$R_7 = 250,000$

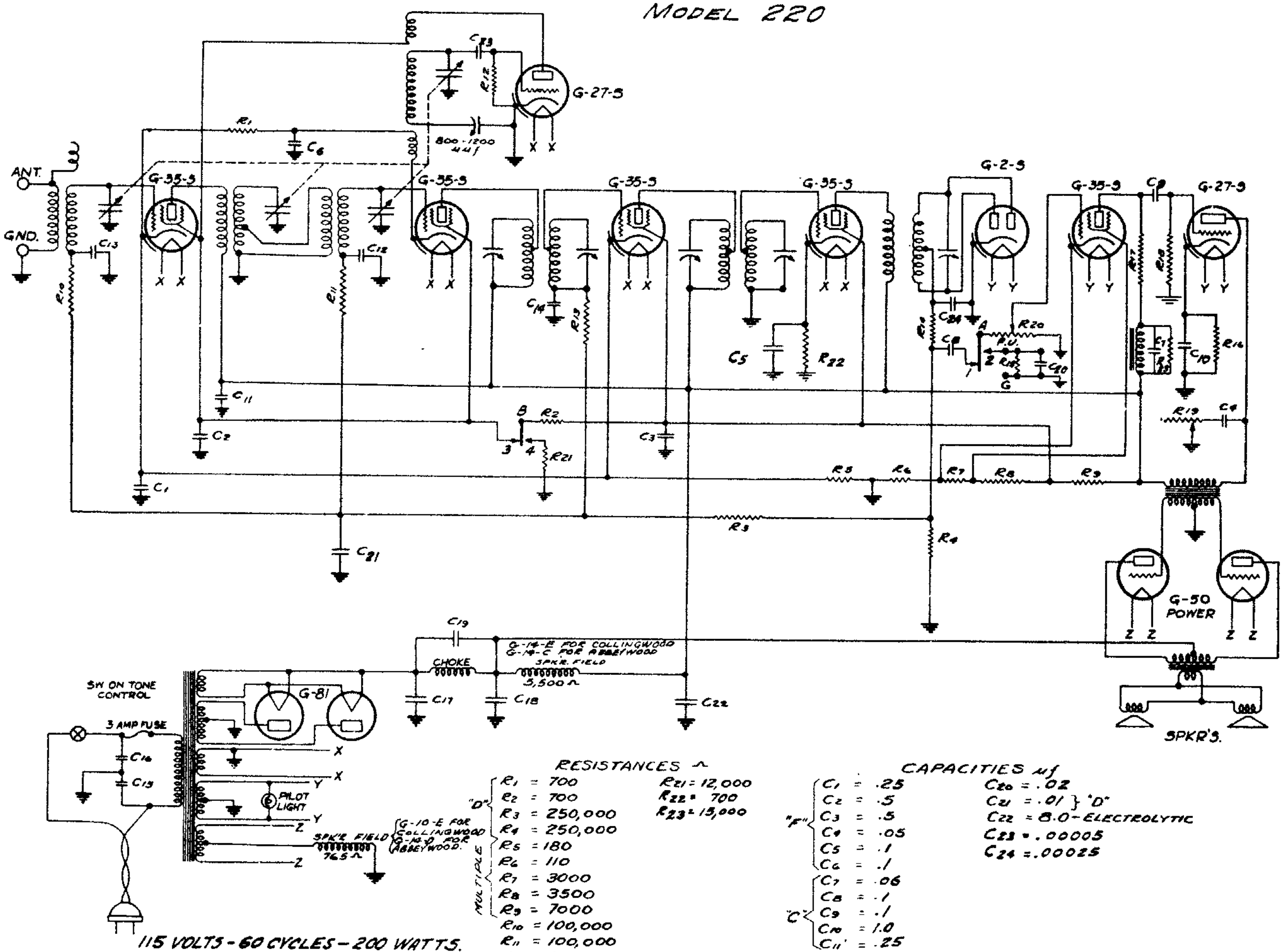
$R_9 = 250,000$
$R_{10} = 500,000$
$R_{11} = 500,000$
$R_{12} = 500,000$
$R_{13} = 100,000$
$R_{14} = 300,000$
$R_{15} = 1,000,000$
$R_{16} = 200,000$

$R_{17} = 20.$
$R_{18} = 500,000.$
$R_{19} = 50,000.$
$R_{20} = 700.$
$R_{21} = 100,000.$

115 VOLTS — 60 CYCLES — 85 WATTS.

I.F. 175 KC.

DIAGRAM OF MAJESTIC AUTOMATIC VOLUME CONTROL SUPERHETERODYNE RECEIVER
MODEL 220



115 VOLTS - 60 CYCLES - 200 WATTS.

"A" & "B" = PHONO-RADIO SWITCH
"E" = FILTER COND. CAN
"F" = R.F. BY-PASS CAN
"C" = A.F. BY-PASS CAN
"D" = RESISTOR STRIP

RESISTANCES Ω

"D" {
R_1 = 700
R_2 = 700
R_3 = 250,000
R_4 = 250,000

MULTIPLE {
R_5 = 180
R_6 = 110
R_7 = 3000
R_8 = 3500
R_9 = 7000

R_{10} = 100,000
R_{11} = 100,000
R_{12} = 100,000
R_{13} = 100,000
R_{14} = 25,000
R_{15} = 30,000
R_{16} = 4000
R_{17} = 25,000
R_{18} = 1,000,000
R_{19} = 50,000
R_{20} = 200,000
R_{21} = 12,000
R_{22} = 700
R_{23} = 15,000

CAPACITIES μf

"F" {
C_1 = .25
C_2 = .5
C_3 = .5
C_4 = .05
C_5 = .1
C_6 = .1

"C" {
C_7 = .06
C_8 = .1
C_9 = .1
C_{10} = 1.0
C_{11}' = .25

C_{12} = 01
C_{13} = .01
C_{14} = .01

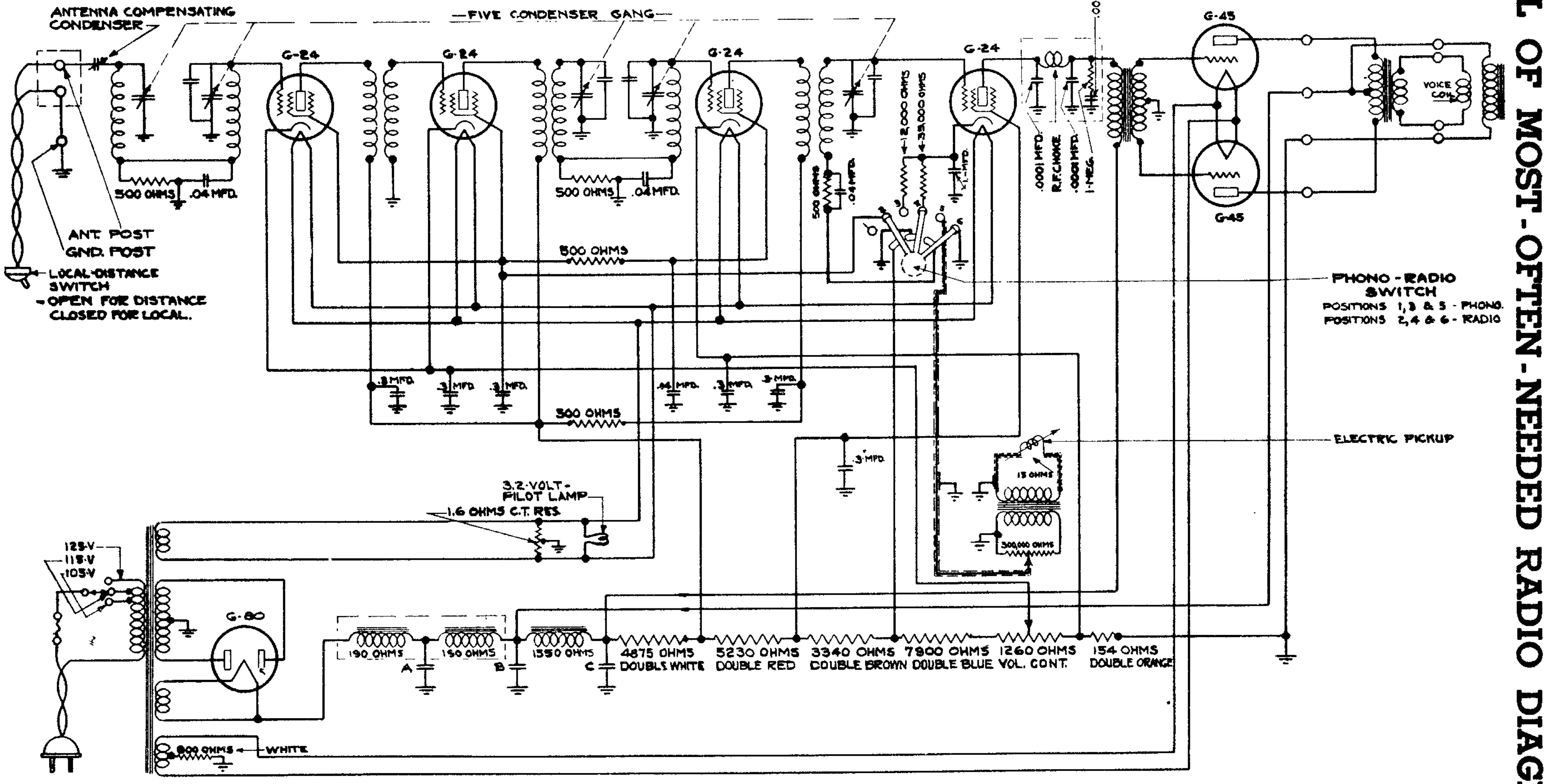
"E" {
C_{15} = .01
C_{16} = .01
C_{17} = 2.0
C_{18} = 4.0
C_{19} = 25

C_{20} = .02
C_{21} = .01 } "D"
C_{22} = 8.0 - ELECTROLYTIC
C_{23} = .00005
C_{24} = .00025

I.F. 175 KC.

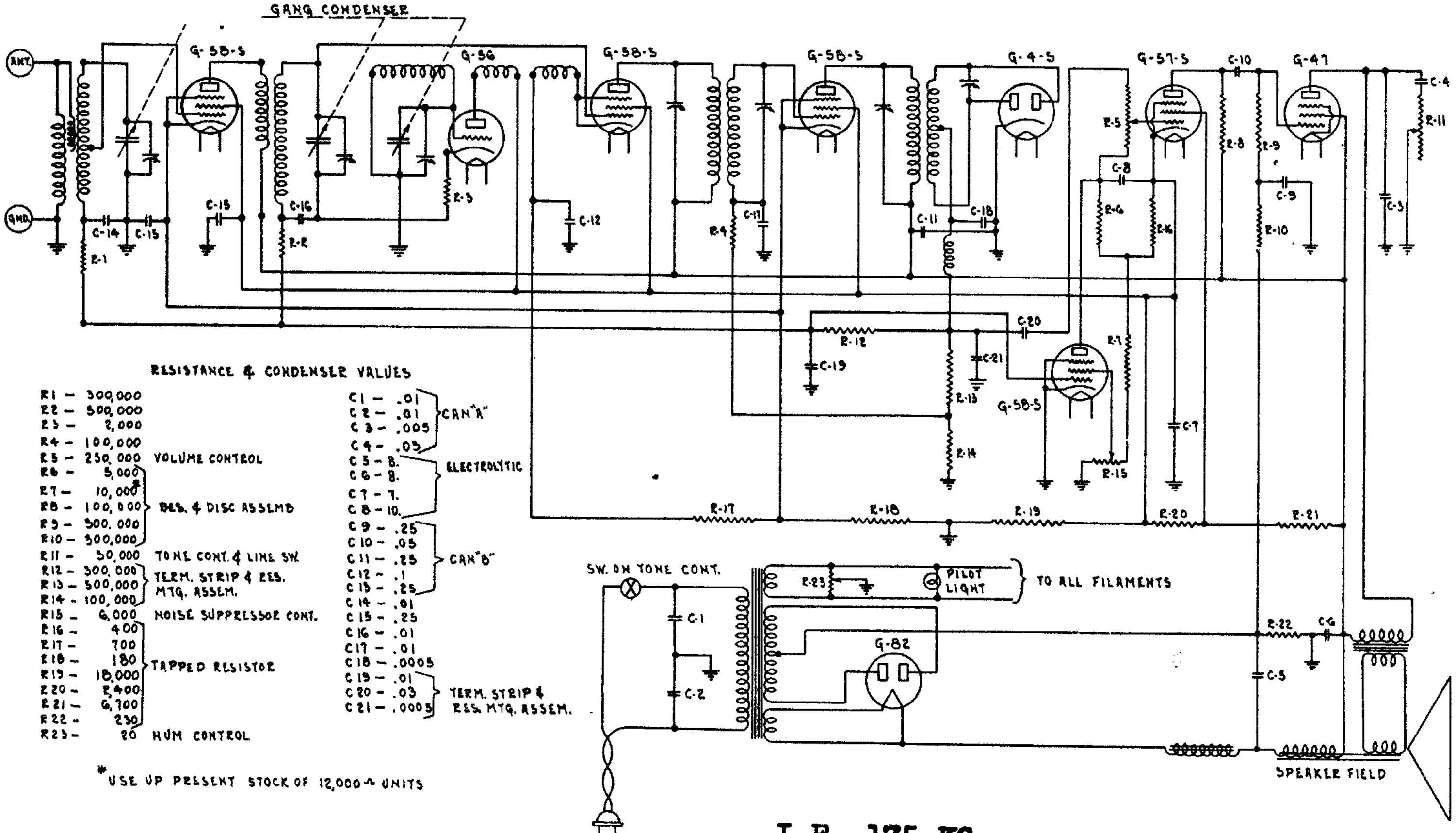
DIAGRAM of MAJESTIC SUPER SCREEN GRID RECEIVER

MODEL 230-A CHASSIS
25-40 & 50-60 CYCLE



	A	B	C
25-40 CYCLE	4-MFD.	4-MFD.	2-MFD.
50-60 CYCLE	2-MFD.	2-MFD.	2-MFD.

DIAGRAM OF MAJESTIC SCREEN GRID SUPERHETERODYNE
AUTOMATIC VOLUME CONTROL RECEIVER MODEL 290 — 115 VOLTS 50-60 CYCLE



RESISTANCE & CONDENSER VALUES

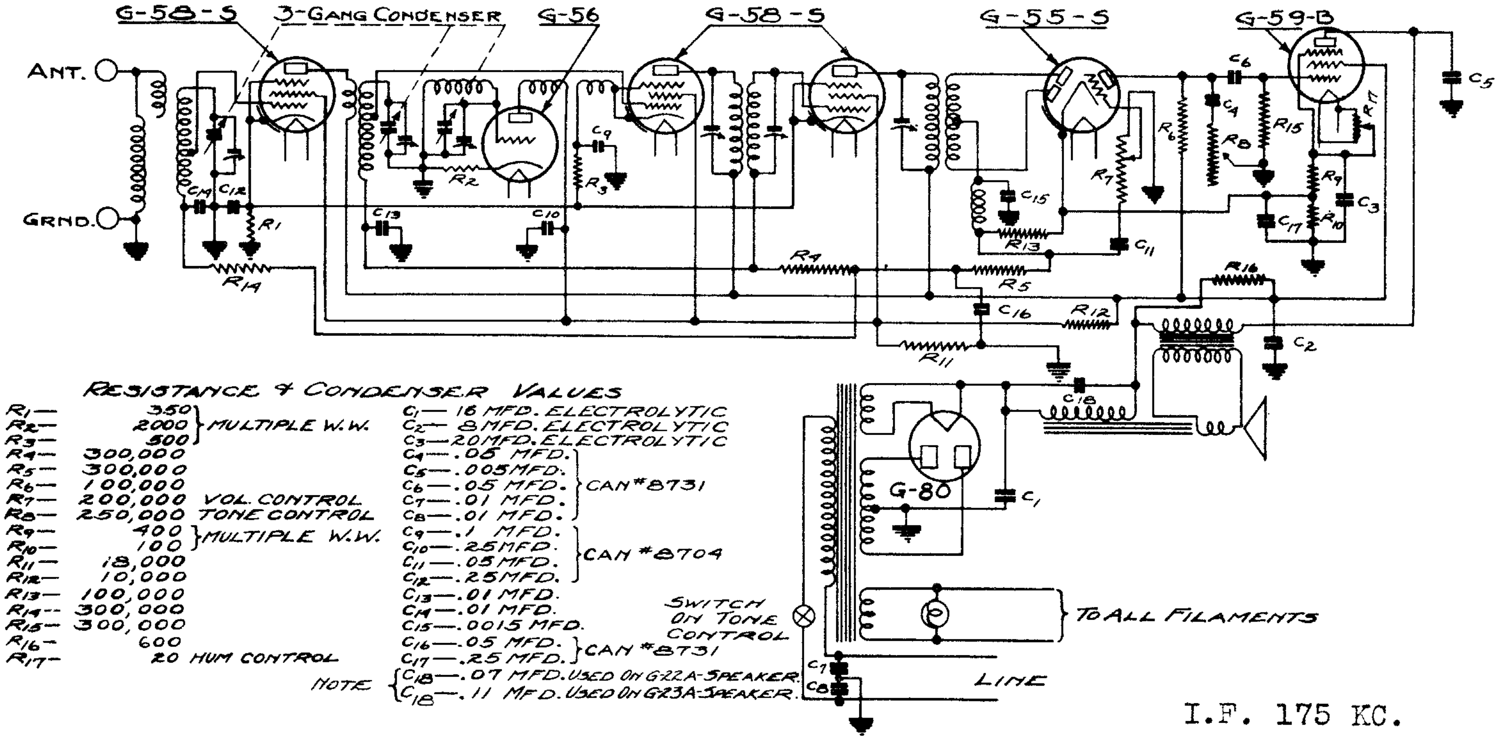
R1 —	300,000		C1 —	.01	CAN "A"
R2 —	500,000		C2 —	.01	
R3 —	2,000		C3 —	.005	
R4 —	100,000		C4 —	.05	
R5 —	250,000	VOLUME CONTROL	C5 —	8.	ELECTROLYTIC
R6 —	5,000	RES. & DISC ASSEMB	C6 —	8.	
R7 —	10,000*		C7 —	7.	
R8 —	100,000		C8 —	10.	
R9 —	500,000		C9 —	.25	CAN "B"
R10 —	300,000		C10 —	.05	
R11 —	50,000	TONE CONT. & LINE SW.	C11 —	.25	
R12 —	300,000	TERM. STRIP & RES. MTG. ASSEM.	C12 —	.1	
R13 —	500,000		C13 —	.25	
R14 —	100,000		C14 —	.01	
R15 —	6,000	NOISE SUPPRESSOR CONT.	C15 —	.25	
R16 —	400	TAPPED RESISTOR	C16 —	.01	
R17 —	700		C17 —	.01	
R18 —	180		C18 —	.0005	
R19 —	18,000		C19 —	.01	TERM. STRIP & RES. MTG. ASSEM.
R20 —	2,400		C20 —	.03	
R21 —	6,700		C21 —	.0005	
R22 —	230				
R23 —	20	HUM CONTROL			

*USE UP PRESENT STOCK OF 12,000 Ω UNITS

I.F. 175 KC.

DIAGRAM OF MAJESTIC AUTOMATIC VOLUME CONTROL SUPERHETERODYNE

MODEL 330



RESISTANCE & CONDENSER VALUES

R1—	350	MULTIPLE W.W.
R2—	2000	
R3—	500	
R4—	300,000	
R5—	300,000	
R6—	100,000	
R7—	200,000	VOL. CONTROL
R8—	250,000	TONE CONTROL
R9—	400	MULTIPLE W.W.
R10—	100	
R11—	18,000	
R12—	10,000	
R13—	100,000	
R14—	300,000	
R15—	300,000	
R16—	600	
R17—	20	HUM CONTROL

C1—	16 MFD. ELECTROLYTIC	
C2—	8 MFD. ELECTROLYTIC	
C3—	20 MFD. ELECTROLYTIC	
C4—	.05 MFD.	CAN #8731
C5—	.005 MFD.	
C6—	.05 MFD.	
C7—	.01 MFD.	
C8—	.01 MFD.	
C9—	.1 MFD.	CAN #8704
C10—	.25 MFD.	
C11—	.05 MFD.	
C12—	.25 MFD.	
C13—	.01 MFD.	
C14—	.01 MFD.	
C15—	.0015 MFD.	
C16—	.05 MFD.	CAN #8731
C17—	.25 MFD.	

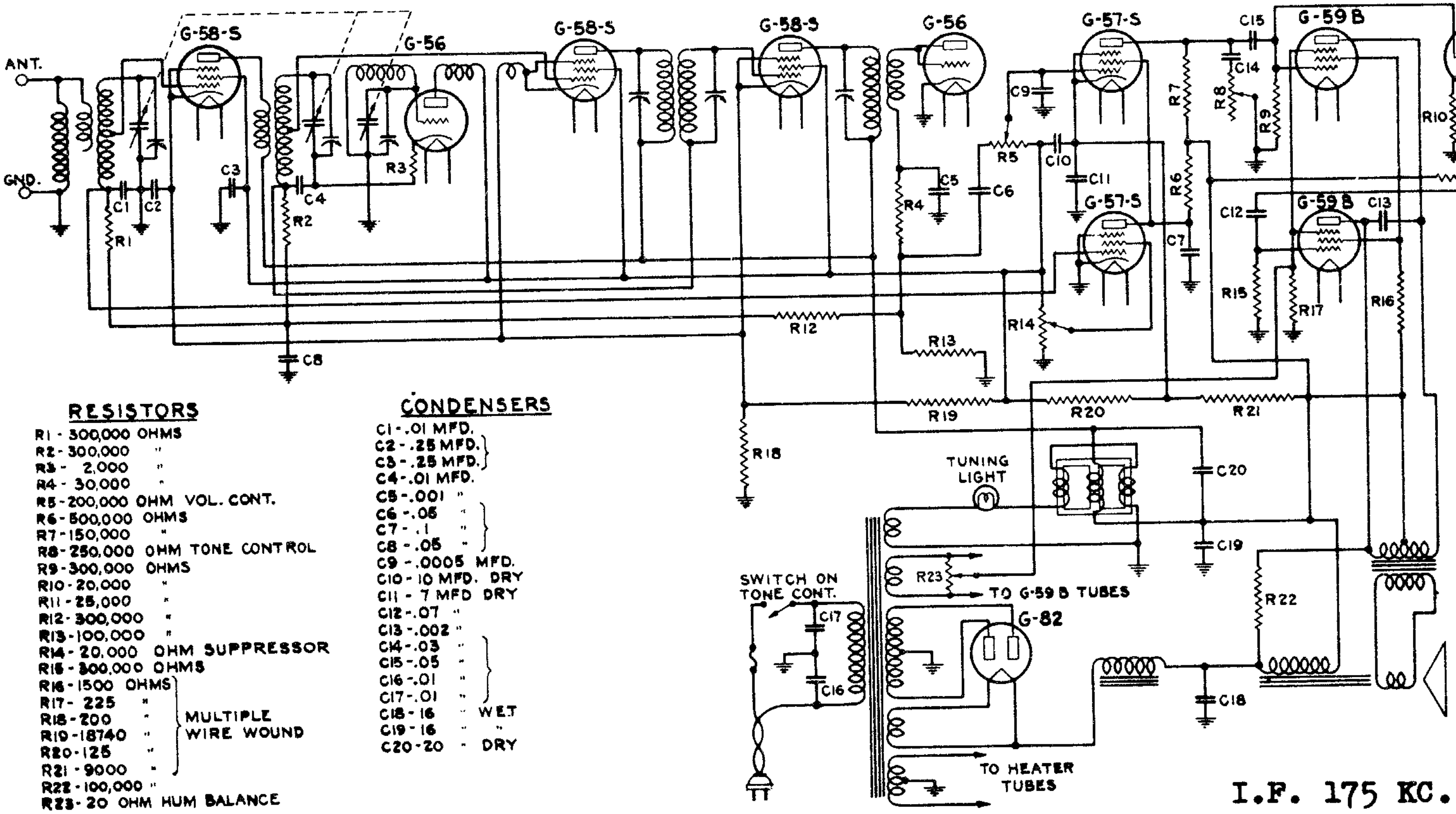
NOTE
C18—.07 MFD. USED ON G-22A-SPEAKER.
C18—.11 MFD. USED ON G-23A-SPEAKER.

I.F. 175 KC.

Automatic volume control bias voltage is developed across resistors R-13 and R-10 and is applied to the grid of the radio frequency, first detector and intermediate frequency tubes to control their amplification.

The manual volume control is a 200,000 ohm potentiometer which is connected in the grid circuit of the G-55-S tube and works entirely independent of the automatic volume control.

MAJESTIC MODEL 360 RECEIVER



RESISTORS

R1 - 300,000 OHMS
R2 - 300,000 "
R3 - 2,000 "
R4 - 30,000 "
R5 - 200,000 OHM VOL. CONT.
R6 - 500,000 OHMS
R7 - 150,000 "
R8 - 250,000 OHM TONE CONTROL
R9 - 300,000 OHMS
R10 - 20,000 "
R11 - 25,000 "
R12 - 300,000 "
R13 - 100,000 "
R14 - 20,000 OHM SUPPRESSOR
R15 - 300,000 OHMS
R16 - 1500 OHMS } MULTIPLE WIRE WOUND
R17 - 225 "
R18 - 200 "
R19 - 18740 "
R20 - 125 "
R21 - 9000 "
R22 - 100,000 "
R23 - 20 OHM HUM BALANCE

CONDENSERS

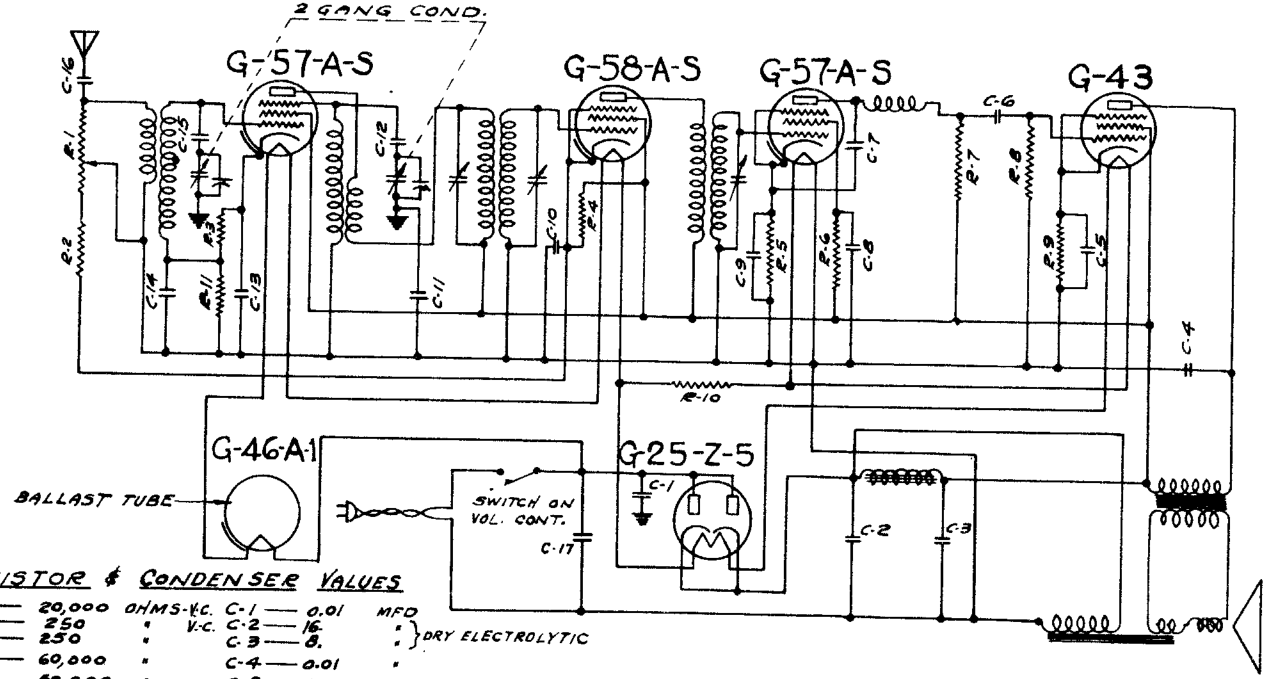
C1 - .01 MFD.
C2 - .25 MFD. }
C3 - .25 MFD. }
C4 - .01 MFD.
C5 - .001 "
C6 - .05 " }
C7 - .1 " }
C8 - .05 " }
C9 - .0005 MFD.
C10 - 10 MFD. DRY
C11 - 7 MFD DRY
C12 - .07 "
C13 - .002 "
C14 - .03 " }
C15 - .05 " }
C16 - .01 " }
C17 - .01 " }
C18 - 16 " WET
C19 - 16 " "
C20 - 20 " DRY

I.F. 175 KC.

The Model 360 is an eleven tube chassis designed for single speaker operation in the Model 363 receiver. This chassis is very similar to the Model 300 chassis in that it provides Synchro-Silent Tuning, resistance coupled push-pull output, reactance dimmer action and automatic volume control. The tubes employed and their respective stages are as follows: G-58-S, R.F. amplifier; G-56, Oscillator: G-58-S, first detector; G-58-S, I.F. amplifier; G-56, second detector; G-57-S, first audio amplifier, G-57-S, suppressor; G-56, phase rotator; two G-59-B push-pull output and G-82 rectifier.

MODEL 400 CHASSIS
and
MODEL G-26-C SPEAKER

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID A.C.-D.C. SUPERHETERODYNE RECEIVER MODEL-400



RESISTOR & CONDENSER VALUES

R-1 — 20,000 OHMS-V.C.
R-2 — 250 "
R-3 — 250 "
R-4 — 60,000 "
R-5 — 50,000 "
R-6 — 1,000,000 "
R-7 — 500,000 "
R-8 — 500,000 "
R-9 — 700 "
R-10 — 500 "
R-11 — 2,000 "

V.C. C-1 — 0.01 MFD
C-2 — 16. " } DRY ELECTROLYTIC
C-3 — 8. "
C-4 — 0.01 "
C-5 — 10. " DRY ELECTROLYTIC
C-6 — 0.10 "
C-7 — 0.0005 "
C-8 — 0.10 "
C-9 — 0.25 "
C-10 — 0.25 "
C-11 — 0.25 "

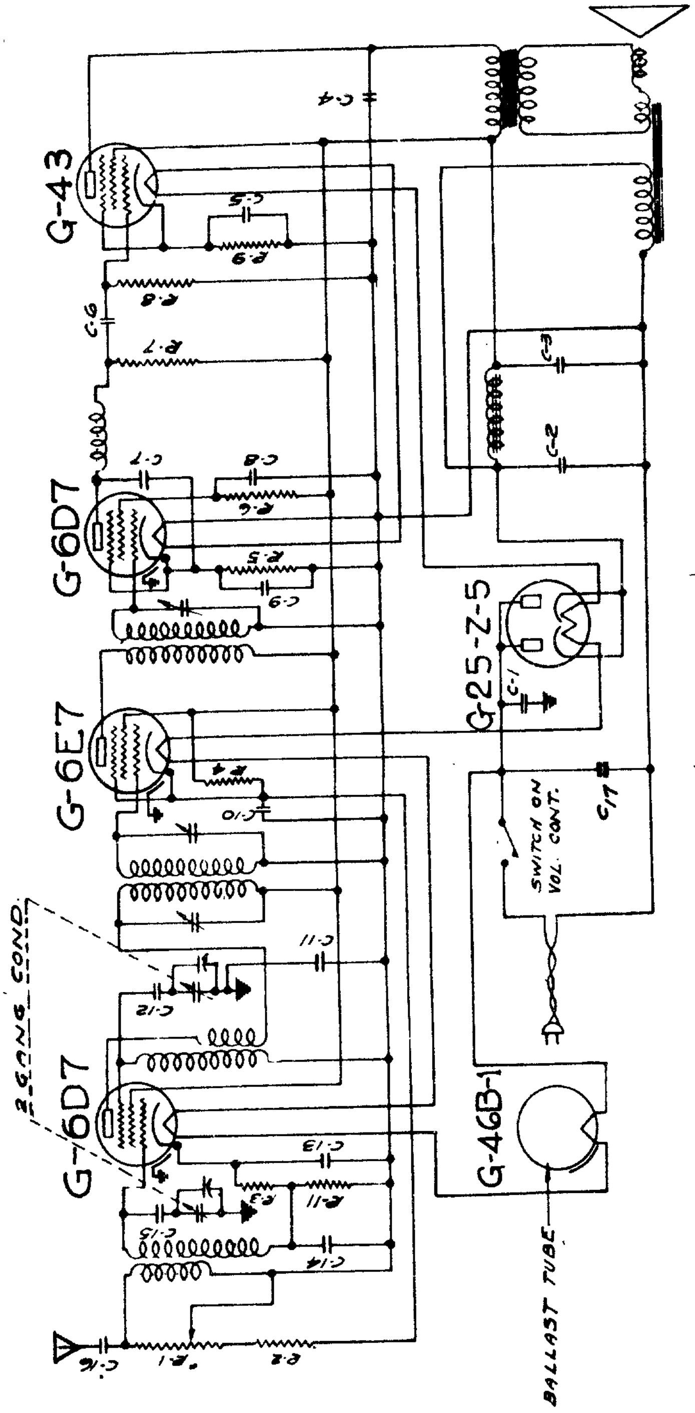
C-12 — 0.01 mfd
C-13 — 0.25 "
C-14 — 0.10 "
C-15 — 0.01 "
C-16 — 0.001 "
C-17 — 0.10 "

1 - With the volume control in maximum volume position and the gang condenser completely out of mesh, supply a 456 K.C. signal to the grid of the modulator tube and adjust the 4 I.F. tuning condensers for maximum sensitivity.

ALIGNMENT PROCEDURE

2 - With the gang condenser and volume control in the same position, supply a 1730 K.C. signal to the input of the receiver and align the 2 R.F. trimmer condensers for maximum sensitivity.

SCHEMATIC DIAGRAM OF MAJESTIC SCREEN GRID A.C.-D.C. SUPERHET. RECEIVER MODEL-400-A



I.F. 456 KC.

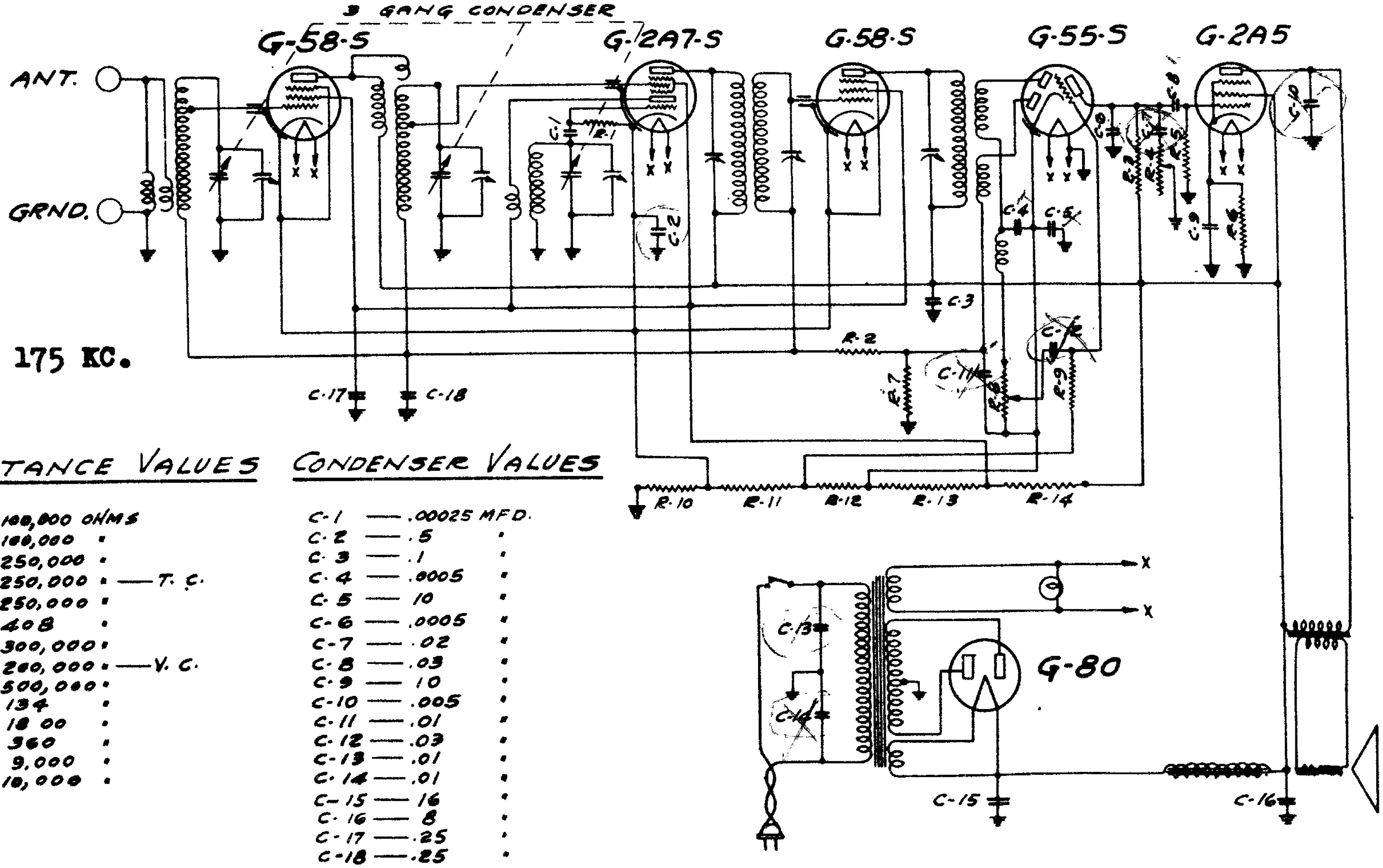
RESISTOR & CONDENSER VALUES

	OHMS			MFD	
R-1	20,000	OHMS-V.C.	C-1	0.01	MFD
R-2	250	V.C.	C-2	16.	DRY ELECTROLYTIC
R-3	160		C-3	8.	DRY ELECTROLYTIC
R-4	60,000		C-4	0.01	
R-5	50,000		C-5	10.	DRY ELECTROLYTIC
R-6	1,000,000		C-6	0.10	
R-7	500,000		C-7	0.0005	
R-8	500,000		C-8	0.10	
R-9	700		C-9	0.25	
R-10			C-10	0.25	
R-11	2500		C-11	0.25	
			C-12	0.01	
			C-13	0.25	
			C-14	0.10	
			C-15	0.01	
			C-16	0.001	
			C-17	0.10	

The circuit of the Model 400-A chassis is practically the same as that of the Model 400. The main differences being that the types G-6D7 and G-6E7 tubes are used in place of types G-57A-S and G-58A-S respectively; and that a type G-46A-1 tube is used as a ballast in place of the G-46B-1.

Resistors R-3 and R-11 have a value of 160 and 2500 ohms respectively in the Model 400-A chassis while they have a value of 250 and 200 ohms in the Model 400 chassis. Resistor R-10 is omitted entirely.

SCHEMATIC DIAGRAM OF MAJESTIC MODEL-460 RECEIVER



I.F. 175 KC.

RESISTANCE VALUES

R-1 — 100,000 OHMS
R-2 — 100,000 "
R-3 — 250,000 "
R-4 — 250,000 " — T. C.
R-5 — 250,000 "
R-6 — 408 "
R-7 — 300,000 "
R-8 — 200,000 " — V. C.
R-9 — 500,000 "
R-10 — 134 "
R-11 — 18 00 "
R-12 — 360 "
R-13 — 9,000 "
R-14 — 10,000 "

CONDENSER VALUES

C-1 — .00025 MFD.
C-2 — .5 "
C-3 — .1 "
C-4 — .0005 "
C-5 — 10 "
C-6 — .0005 "
C-7 — .02 "
C-8 — .03 "
C-9 — 10 "
C-10 — .005 "
C-11 — .01 "
C-12 — .03 "
C-13 — .01 "
C-14 — .01 "
C-15 — 16 "
C-16 — 8 "
C-17 — .25 "
C-18 — .25 "

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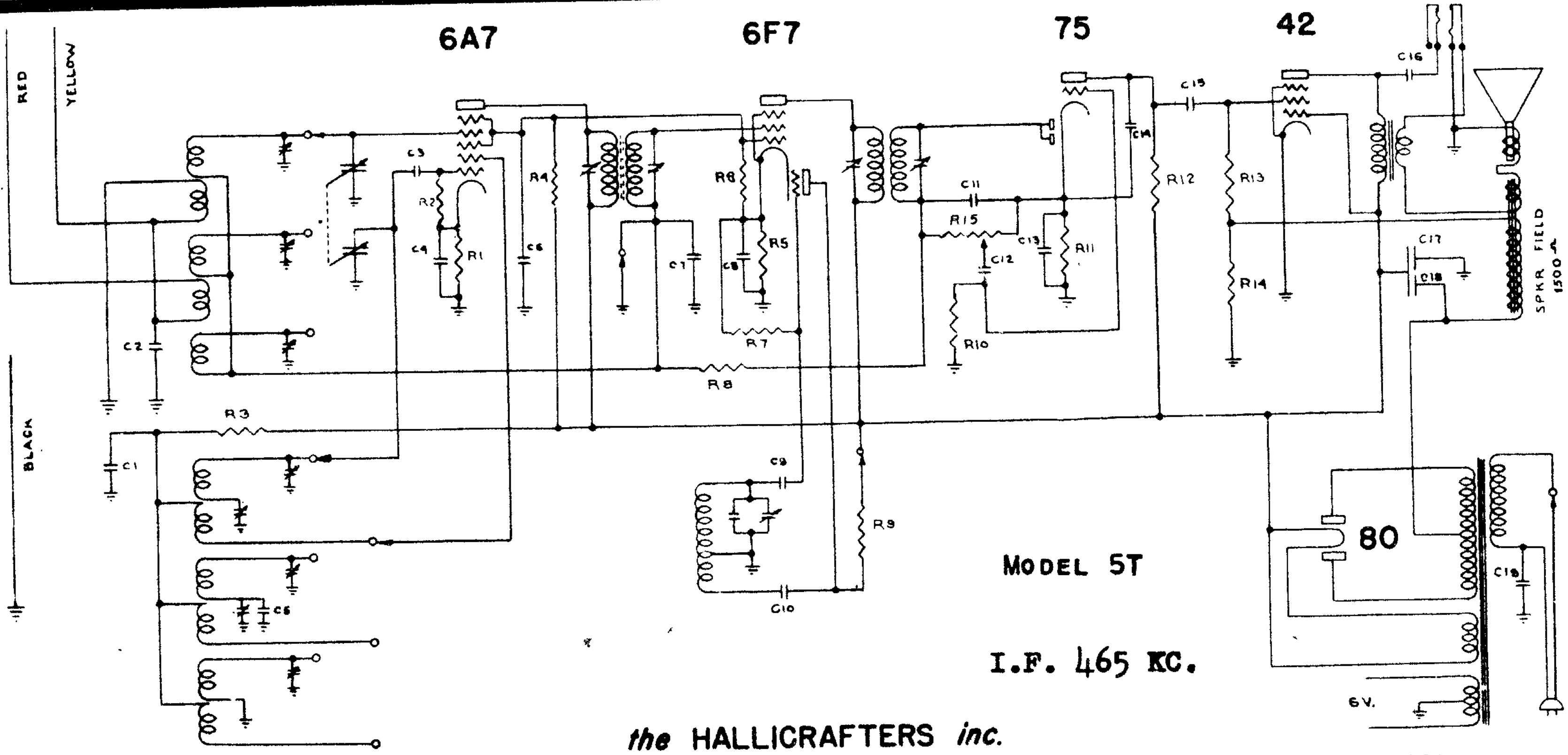


MODEL 5T

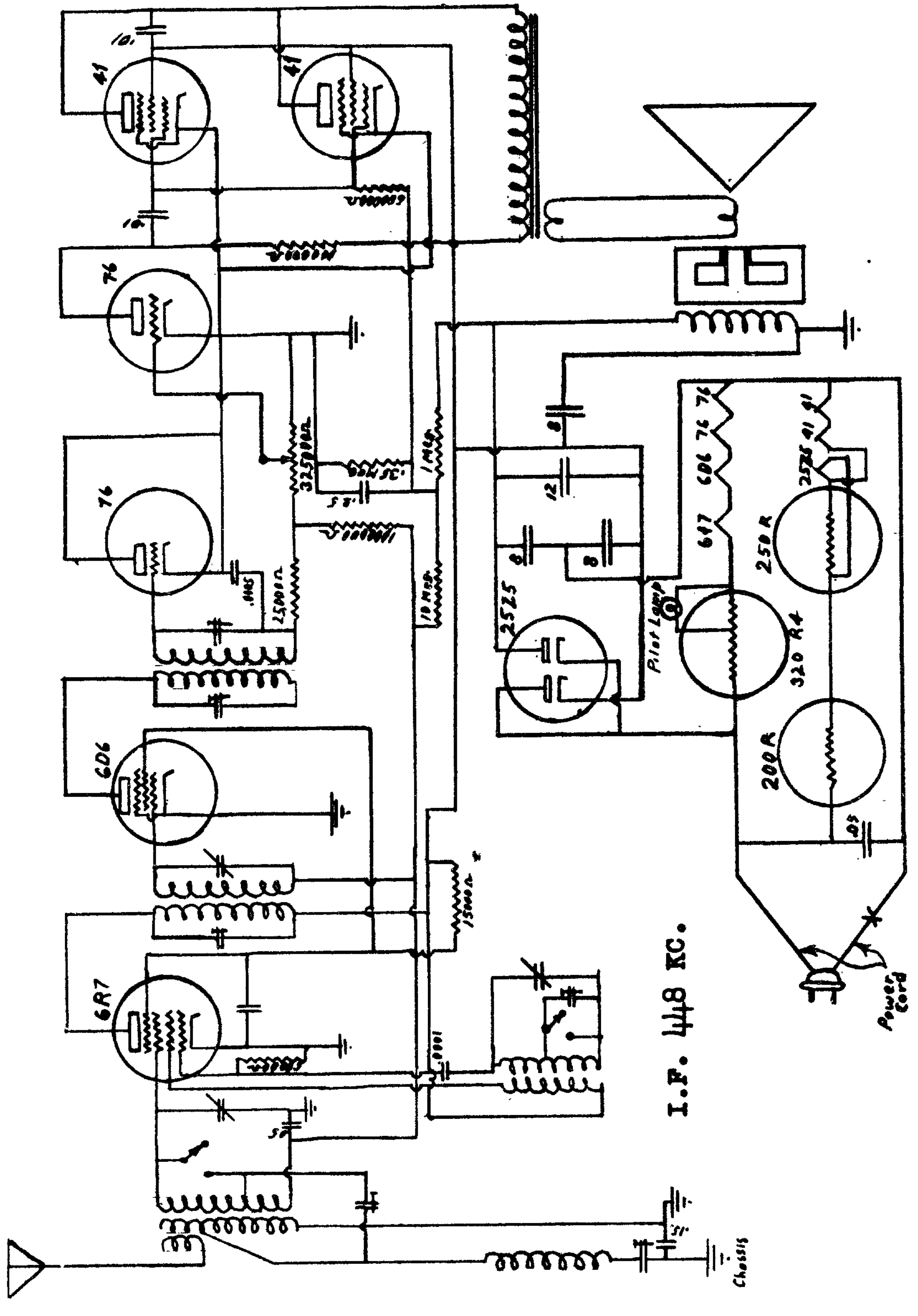
I.F. 465 KC.

the HALLICRAFTERS inc.
SKY BUDDY

C1	.1	400
C2	10 mmf	
C3	100 mmf	
C4	.1	200
C5	1000 mmf	
C6	.1	400
C7	.05	200
C8	.1	200
C9	250	
C10	.01	400
C11	250 mmf	
C12	.01	400
C13	.1	200

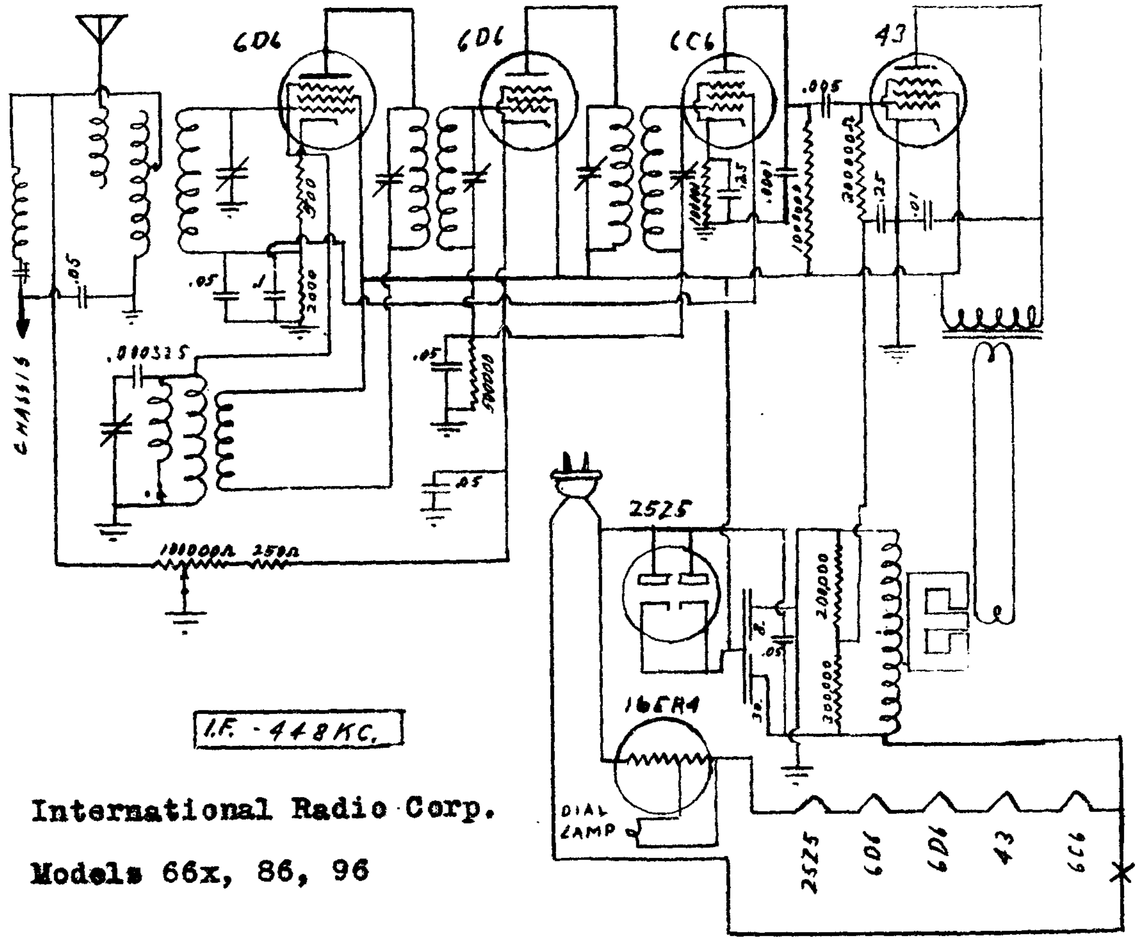
C14	250 mmf	
C15	.01	400
C16	.05	400
C17	8.mfd	
C18	4.mfd	
C19	.01	400

R1	250
R2	30,000
R3	25,000
R4	25,000
R5	200
R6	25,000
R7	100,000
R8	1 meg
R9	100,000
R10	1 meg
R11	4000
R12	250,000
R13	400,000
R14	250



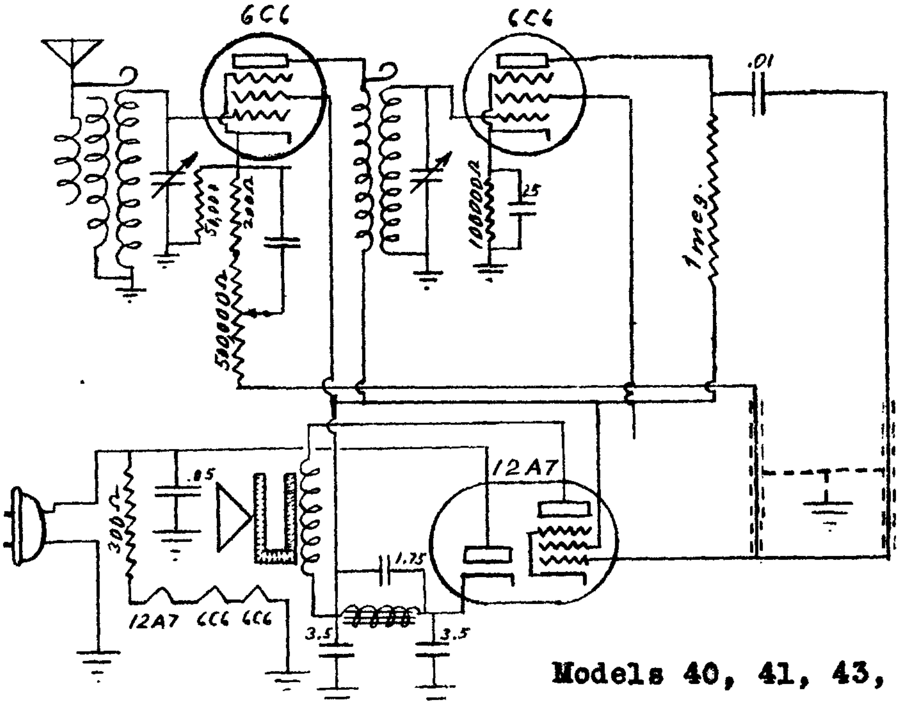
I.F. 448 KC.

International Radio Corp.
Model 1019

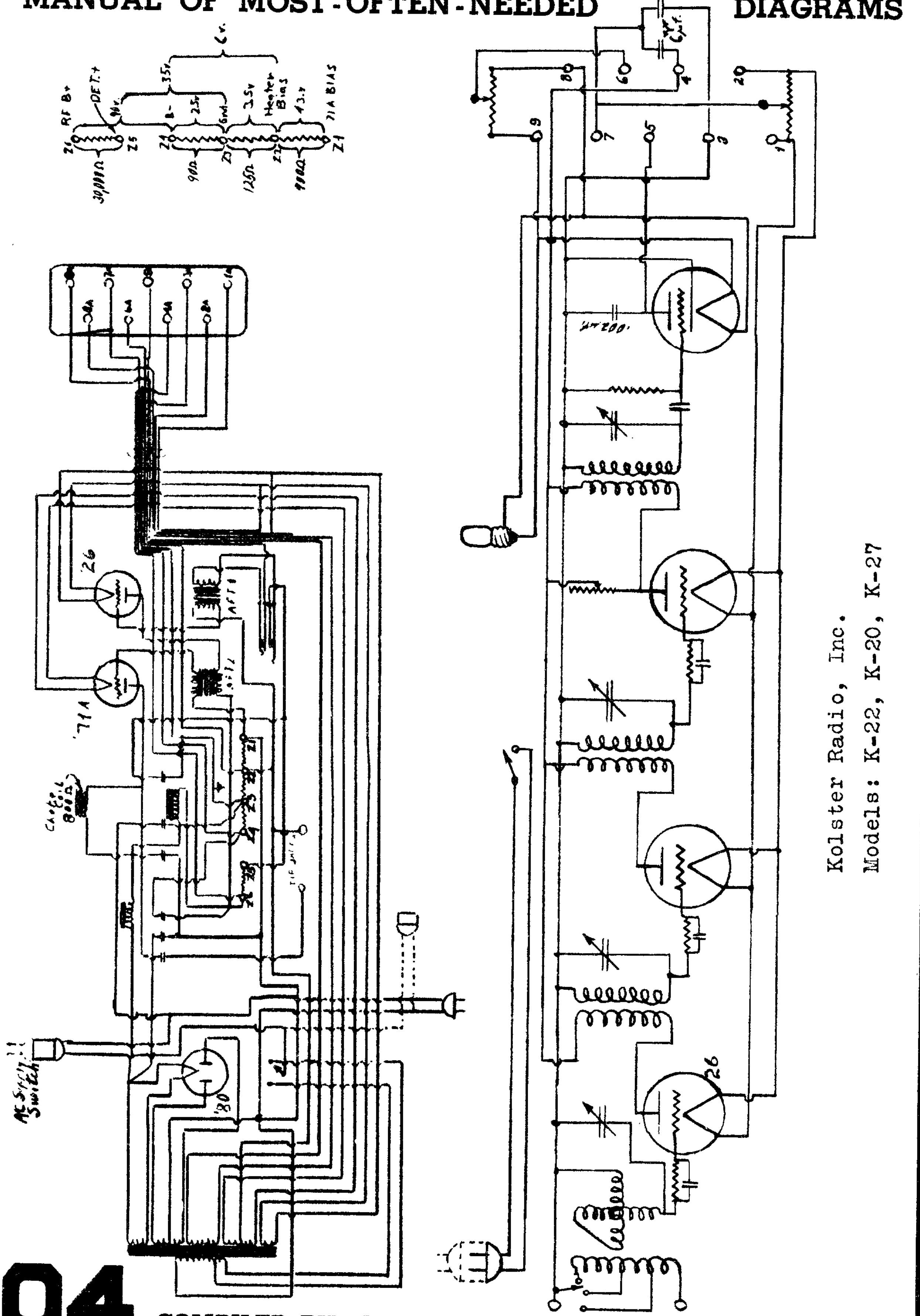


International Radio Corp.

Models 66x, 86, 96



Models 40, 41, 43, 44



Kolster Radio, Inc.

Models: K-22, K-20, K-27

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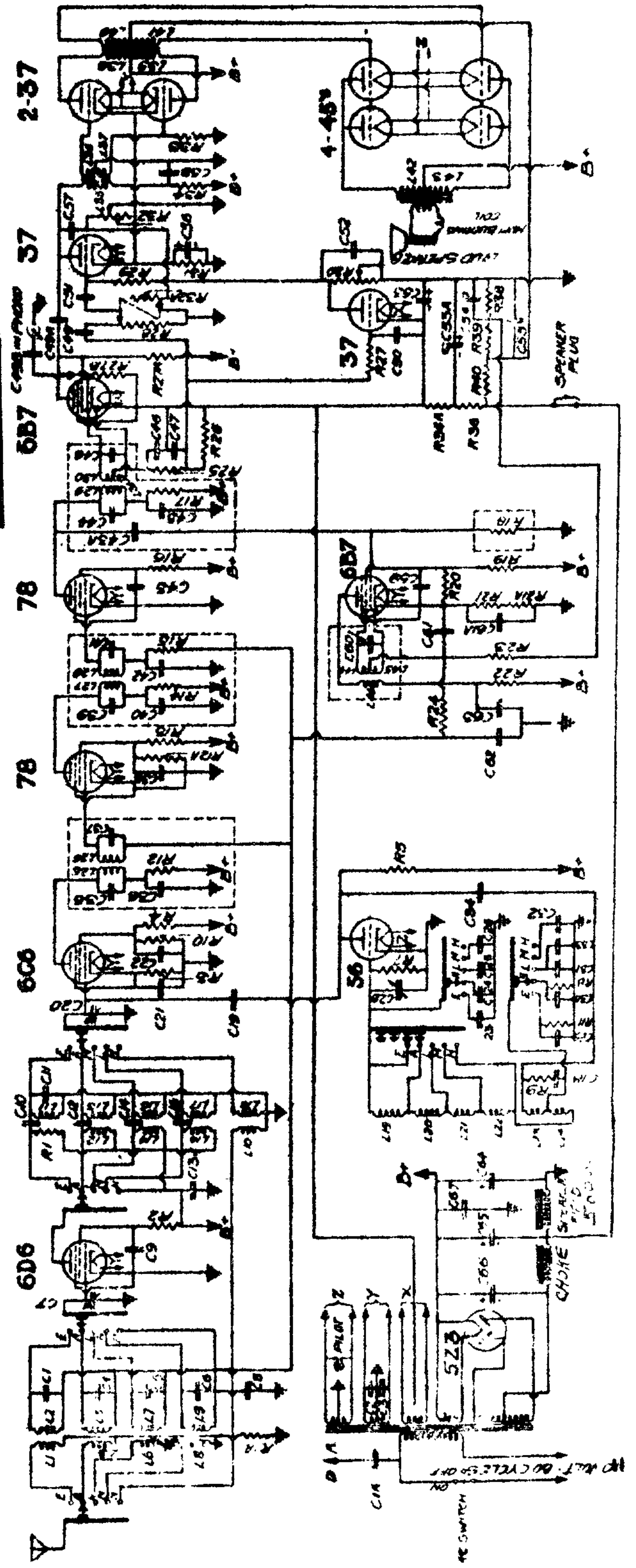
C1A - 250 MMFD - MICA
C1 - 80 " - TRIMMER
C2 - .05 MFD - 200 VOLT
C3 - .05 " - 200 "
C4 - 20 MMFD - TRIMMER
C5 - 20 " - "
C6 - 20 " - "
C7 - 365 " - TUNING CONDENSER
C8 - .05 MFD - 200 VOLT
C9 - .05 " - 400 "
C10 - 25 MMFD - MICA
C11 - 80 " - TRIMMER
C12 - 20 " - "
C13 - .05 MFD - 400 VOLT
C14 - 20 MMFD - TRIMMER
C16 - 20 " - "
C18 - 25 " - MICA
C19 - 20 " - TRIMMER
C20 - 365 " - TUNING CONDENSER
C21 - .05 MFD - 200 VOLT
C22 - .05 " - 200 "
C23 - 80 MMFD - TRIMMER
C24 - 20 " - "
C25 - 20 " - "
C26 - 20 " - "
C28 - 365 " - TUNING CONDENSER
C29 - 140 " - PADDER
C30 - 360 " - "
C31 - 700 " - "
C32 - 1000 " - MICA
C33 - 500 " - "
C34 - 2000 " - "
C35 - I.F.T - TRIMMER
C36 - .05 MFD - 400 VOLT
C37 - I.F.T. - TRIMMER
C38 - .05 MFD - 400 VOLT
C39 - I.F.T. - TRIMMER
C40 - .05 MFD - 400 VOLT
C41 - I.F.T - TRIMMER
C42 - .05 MFD - 200 VOLT
C43 - .05 " - 400 "
C43A - 25 MMFD - MICA
C44 - I.F.T. - TRIMMER
C45 - .05 MFD - 400 VOLT
C46 - 250 MMFD - MICA } DUAL
C47 - 250 " - MICA }
C48 - I.F.T. - TRIMMER
C49 - .05 MFD - 200 VOLT
C49A - .05 " - 400 "
C49B - .05 " - 200 " IN PHONO
C50 - .05 " - 200 "
C51 - .25 " - 200 "
C52 - .01 " - 200 "
C55 - 25 " - 50 "
C53A - 10 " - 35 "
C54 - .05 " - 200 "
C53 - 25 " - 30 "
C56 - 12 " - 25 "

C57 - .05 " - 400 "
C58 - 1 " - 300 "
C59 - .05 " - 400 "
C60 - I.F.T. - TRIMMER
C61 - .001 MFD - 600 VOLT
C61A - .05 " - 200 "
C62 - .001 " - 600 "
C63 - .05 " - 400 "
C64 - 8 " - ELECTROLYTIC
C65 - 8 " - "
C66 - 8 " - "
C67 - .25 " - 400 VOLT

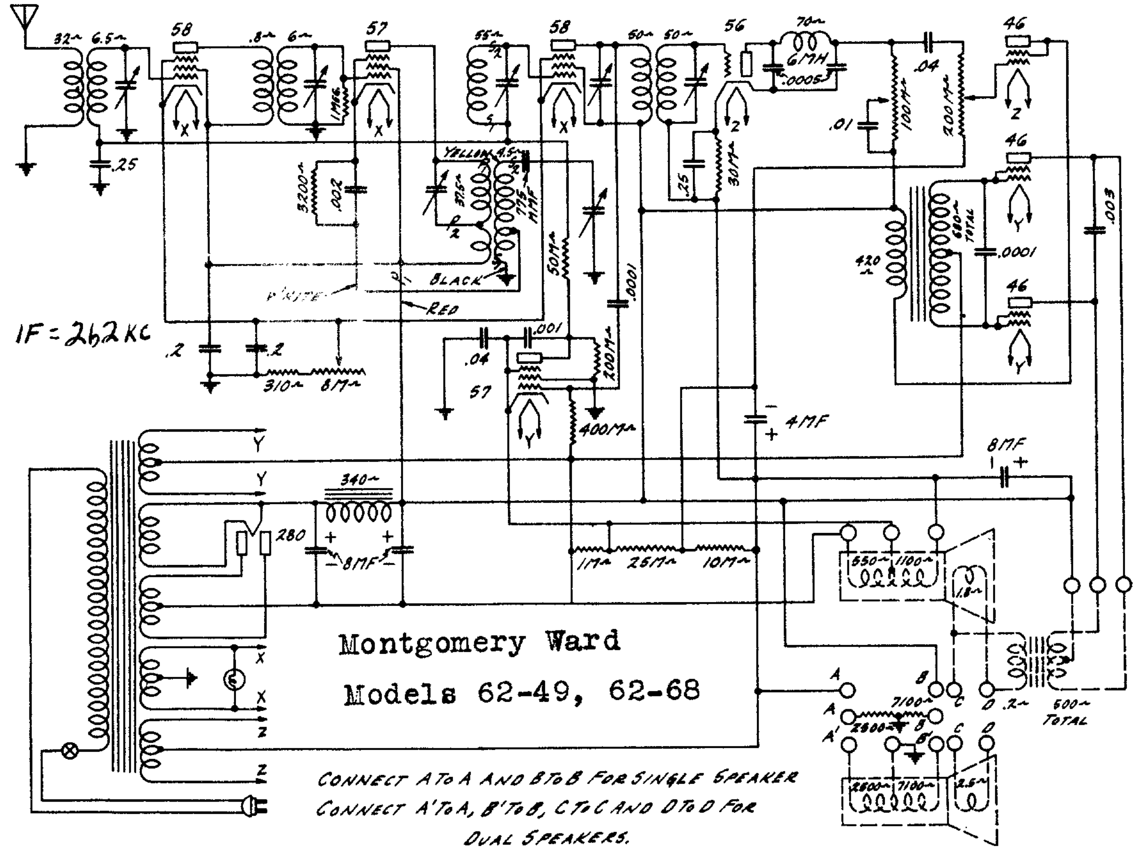
R1A - 5 000 Ω - .25 WATT
R1 - 75 000 Ω - .25 "
R2 - 200 000 Ω - .25 "
R3 - 5 000 Ω - .25 "
R4 - 50 000 Ω - .50 "
R5 - 15 000 Ω - 1 "
R7 - 500 000 Ω - .25 "
R8 - 200 000 Ω - .25 "
R9 - 1 000 Ω - .25 "
R10 - 10 000 Ω - .25 "
R11 - 50 000 Ω - .25 "
R12 - 5 000 Ω - .25 "
R12A - 150 000 Ω - .25 "
R13 - 200 000 Ω - .25 "
R14 - 5 000 Ω - .25 "
R15 - 3 MEG Ω - .25 "
R16 - 200 000 Ω - .25 "
R17 - 5 000 Ω - .25 "
R18 - 3 MEG Ω - .25 "
R19 - 25 000 Ω - .5 "
R20 - 50 000 Ω - .5 "
R21 - 4 000 Ω - .25 "
R21A - 4 000 Ω - .25 "
R22 - 6 000 Ω - .25 "
R23 - 500 000 Ω - .25 "
R24 - 100 000 Ω - .25 "
R25 - 100 000 Ω - .25 "
R26 - 500 000 Ω - .25 "
R27 - 500 000 Ω - .25 "
R27A - 300 000 Ω - .5 "
R27B - 100 000 Ω - .25 "
R28 - 500 000 Ω - POT VOLUME CONTROL
R29 - 300 000 Ω - .25 WATT
R30 - 50 000 Ω - POT STAT-O-MAT CONTROL
R31 - 700 Ω - 1" FLEXIBLE
R32 - 30 000 Ω - VARIABLE TONE CONTROL
R32A - 50 000 Ω - AUTOMATIC TONE COMPENSATION
R33 - 10 000 Ω - .25 WATT
R34 - 15 000 Ω - 1 "
R36 - 25 000 Ω - .25 "
R36A - 25 000 Ω - .25 "
R38 - 10 000 Ω - .25 "
R39 - 100 000 Ω - .25 "
R40 - 50 000 Ω - .25 "



THE MIDWEST RADIO CORP.
909 BROADWAY CINCINNATI, OHIO.

SCHEMATIC CIRCUIT DIAGRAM
OF THE
MODEL 16-34 SET

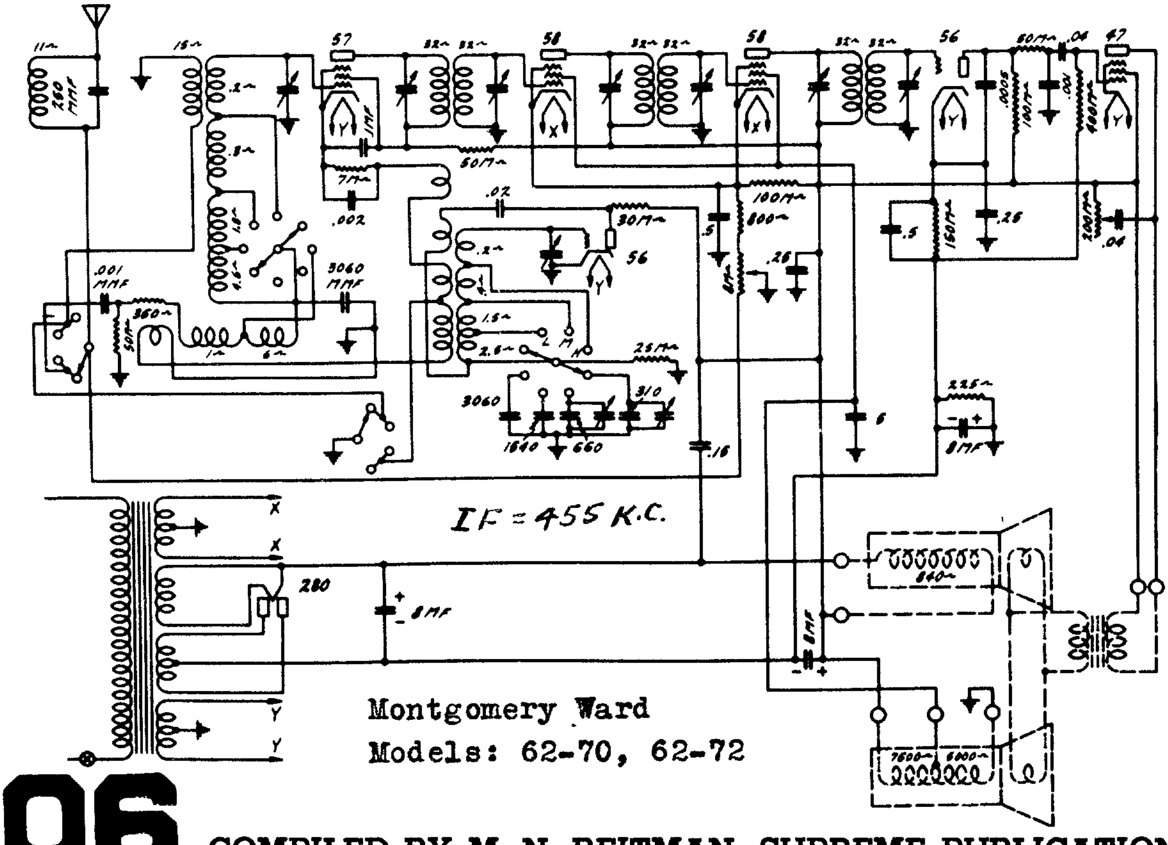
I.F. 450 KC.



Montgomery Ward

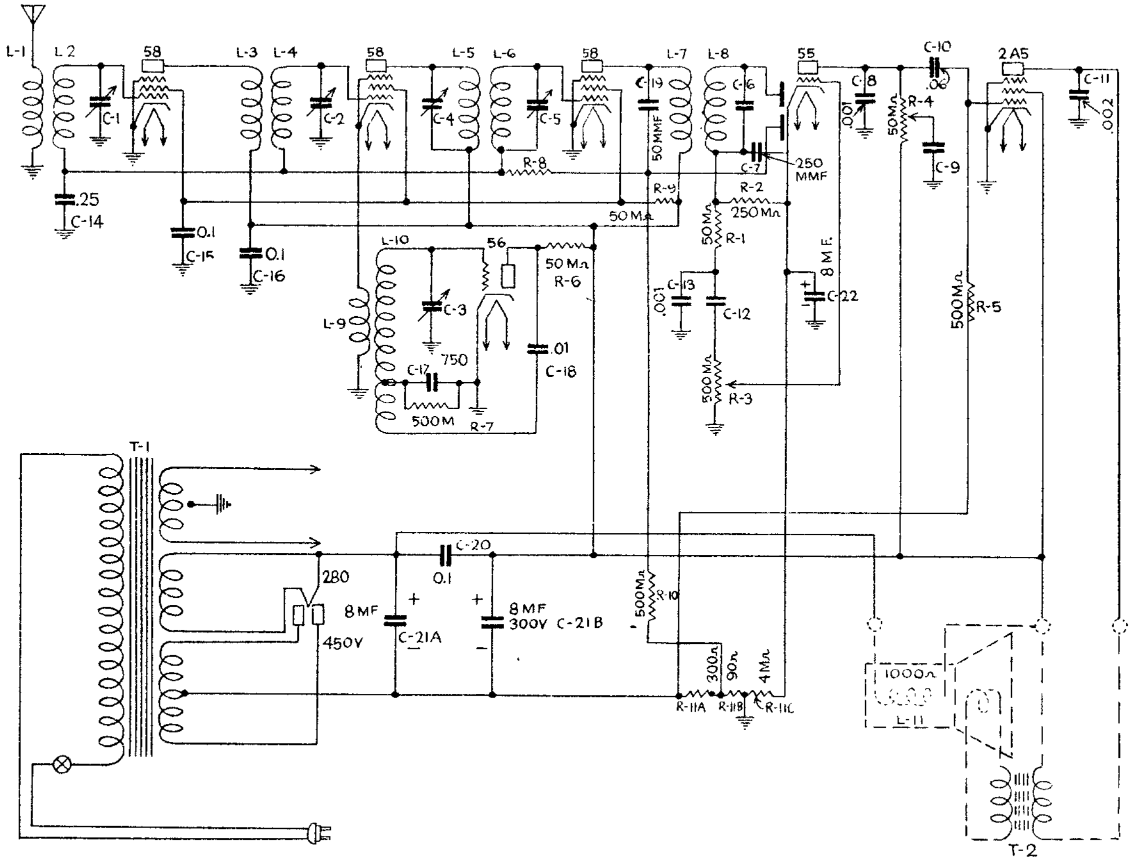
Models 62-49, 62-68

CONNECT A TO A AND B TO B FOR SINGLE SPEAKER
CONNECT A' TO A, B' TO B, C TO C AND D TO D FOR
DUAL SPEAKERS.



Montgomery Ward
Models: 62-70, 62-72

MONTGOMERY WARD & CO.



No. 62-99 AND 62-97

Circuit

The complete circuit consists of a type 58 tube functioning as an R. F. Amplifier, followed by another type 58 tube operating as a 1st detector, or mixer tube. A type 56 tube is used as an oscillator.

The I. F. amplifier utilizes a type 58 tube and is followed by the type 55 tube described above, functioning as a second detector, A. V. C. and first audio amplifier. A type 2A5 is used in the power audio stage.

The 58 R. F. Amplifier Tube is inductively coupled to the antenna by means of the antenna transformer, L-1, L-2, the secondary of which is tuned by one section of the three gang Tuning Condenser.

The second R. F. or first detector transformer provides inductive coupling between the plate circuit of the 58 R. F. Tube and grid circuit of the 58 1st Detector Tube. The secondary of this transformer is tuned by the second section of the three gang Tuning Condenser.

The stage of R. F. amplification consisting of the 58 R. F. Tube, together with its associated R. F. Transformers serves the double purpose of increasing the sensitivity and selectivity of the receiver as well as practically eliminating image or double frequency response.

Grid bias for the 58 R. F. Tube is variable and is controlled by the A. V. C. diode in accordance with the strength of the incoming signal.

A type 58 Tube is used as a first detector or mixer which is of the bias type. The grid bias of this tube is also controlled by the A. V. C.

The oscillator is of the tuned grid type and is tuned by the third section of the three gang Tuning Condenser.

The oscillator frequency is exactly 262 K. C. above the frequency of the received signal. To provide that the oscillator shall track accurately it is provided with a 675 Mmf. Series Padder Condenser, C-17, and also a shunt trimmer condenser which allows accurate alignment at high frequencies.

Voltages at Sockets

Line Voltage 115—Volume Control at Maximum

Type of Tube	Position of Tube	Function	"A" Volts	"B" Volts	Control Grid "C" Volts	Screen Grid Volts	Screen Current MA	Plate Current MA	Cathode Volts
56	1	Osc.	2.3	110	15-30(1)	......	...	3-3.4(1)	0
58	2	R. F.	2.3	260	2.0(2)	90(3)	1.2	4 8	0
58	3	1st Det.	2.3	260	2.0(2)	90(3)	1 3	5.4	0
58	4	I. F.	2.3	260	2.0(2)	90(3)	1.2	4.6	0
55	5	2nd Det.	2.3	Diode 1-0					
		AVC-1st		Diode 2-3					
		Audio		Triode 135	2.0(5)	......	...	4.6	12
2A5	6	Power	2.3	255	3.0(6)	260 .	...	.....	0
80	7	Rectifier	4.8	....	....	......	..	26 Per Plate	..

(1) Varies with frequency approximately as shown.

(2) Voltage as read with 60,000 ohm meter—across 90 ohm section of R-11—50 volts.

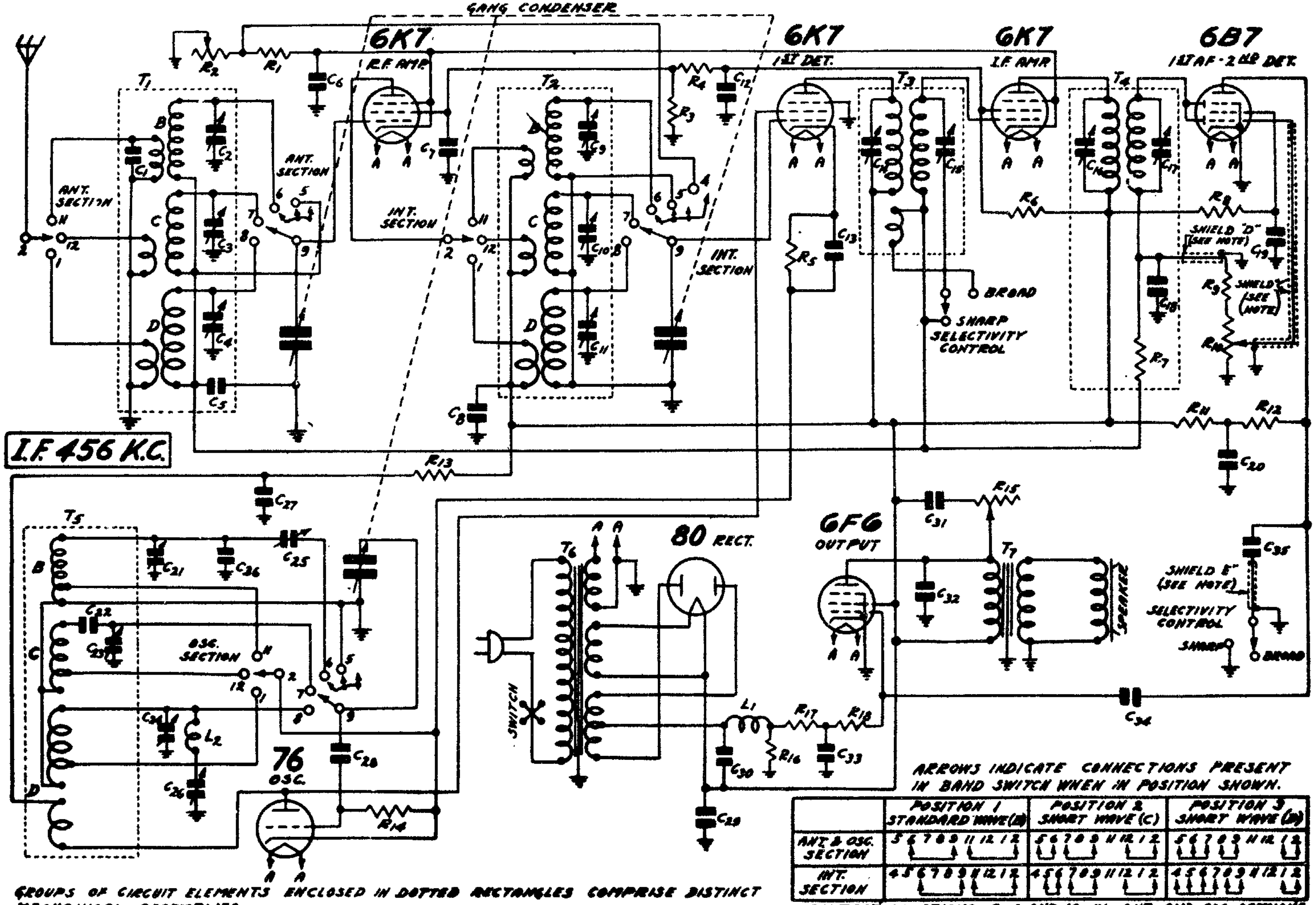
(3) Voltage as read with 600,000 ohm meter.

(4) Not actual voltage due to resistance in circuit—tone voltage- -17 volts.

(5) Voltage as read with 60,000 ohm meter—across 4000 ohm section of R-11— 12 volts.

(6) Voltage as read with 60,000 ohm meter—across 300 and 90 ohm section of R-11 —22 volts.

Montgomery Ward Models 62-185, 62-187, 62-190, 62-196



ARROWS INDICATE CONNECTIONS PRESENT IN BAND SWITCH WHEN IN POSITION SHOWN.

CONTACT LOCATIONS 3, 4 AND 10 IN ANT. AND OSC. SECTIONS AND 3 AND 10 IN INT. SECTION ARE BLANK.

GROUPS OF CIRCUIT ELEMENTS ENCLOSED IN DOTTED RECTANGLES COMPRISE DISTINCT MECHANICAL ASSEMBLIES.

THE CAPACITY OF SHIELD "C" "D" AND "E" IS 50 MMF EACH.

C 1	250 mmf.
C 2	2-25 mmf.
C 3	2-25 mmf.
C 4	2-25 mmf.
C 5	.05 mf. 180 V.
C 6	.25 mf. 180 V.
C 7	.05 mf. 240 V.
C 8	.10 mf. 360 V.
C 9	2-25 mmf.
C10	2-25 mmf.
C11	2-25 mmf.
C12	.25 mf. 240 V.
C13	.05 mf. 180 V.
C14	70-150 mmf. } ONE
C15	70 150 mmf. } UNIT
C16	70-150 mmf. } ONE
C17	150-250 mmf. } UNIT
C18	50 mmf.
C19	.25 mf. 360 V.
C20	.25 mf. 360 V.
C21	2 25 mmf.
C22	1400 mmf.
C23	2-25 mmf.
C24	2-25 mmf.
C25	300-600 mmf. } ONE
C26	40-100 mmf. } UNIT
C27	.10 mf. 360 V.
C28	35 mmf.
C29	18 mf. 300 V.
C30	14 mf. 400 V.
C31	.05 mf. 600 V.
C32	.002 mf. 600 V.
C33	.03 mf. 180 V.
C34	.01 mf. 480 V.
C35	.004 mf. 600 V.
R 1	150 ohm .2 W.
R 2	2500 ohm } Dual Vol.
R10	500000 ohm } Coutrol
R 3	30000 ohm .5 W.
R 4	6000 ohm .5 W.
R 5	2500 ohm .2 W.
R 6	16000 ohm 2.0 W.
R 7	2.0 Megohm .2 W.
R 8	300000 ohm .5 W.
R 9	50000 ohm .2 W.
R11	20000 ohm .2 W.
R12	60000 ohm .5 W.
R13	25000 ohm 1.0 W.
R14	80000 ohm .2 W.
R15	150000 Tone Cont.
R16	235 ohm 2.0 W.
R17	100000 ohm .2 W.
R18	500000 ohm .2 W.
T 1	Antenna R.F. Trans.
T 2	Interstage R.F. Trans.
T 3	Ist. I.F. Trans.
T 4	2nd I.F. Trans.
T 5	Osc. Inductors
T 6	Power Trans.
T 7	Output Trans.
L 1	Speaker Field
L 2	Osc. Tracking Coil

Montgomery Ward Radio Model 62-233

DESCRIPTION

Tubes

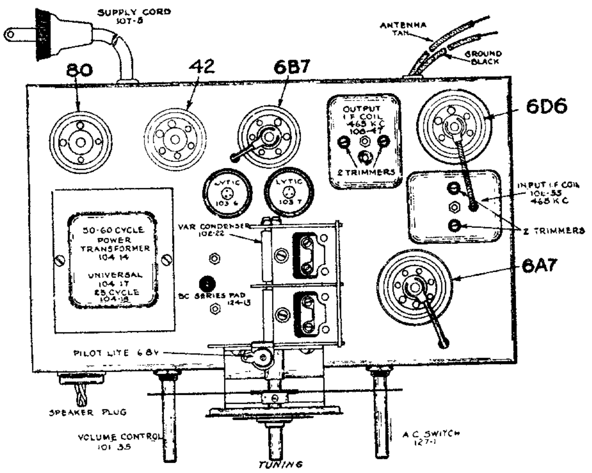
The Tube complement of this chassis is as follows:

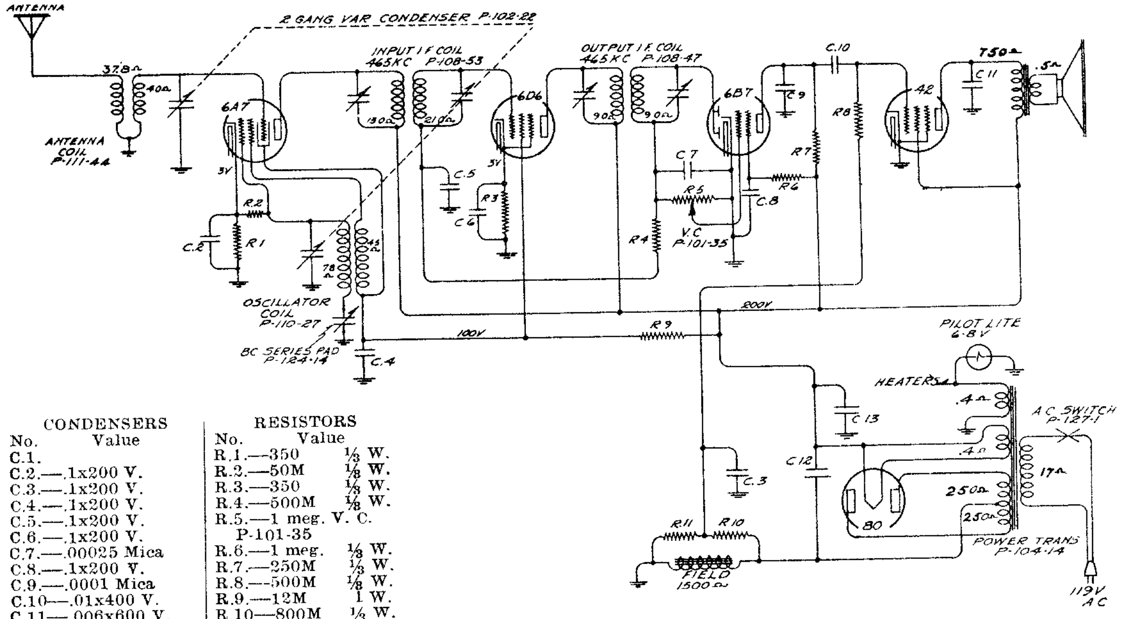
1 Type 6A7—pentagrid electron coupled oscillator and first detector.
1 Type 6D6—remote cut-off pentode as I.F. amplifier.
1 Type 6B7—duplex diode pentode as diode detector, A.V.C. and A.F.
1 Type 42—pentode output tube.
1 Type 80—high vacuum rectifier.

Voltages taken from different points of circuit to chassis are measured with volume control full on, all tubes in their sockets and speaker connected, with a volt meter having a resistance of 1000 ohms per volt. These voltages are clearly indicated on the circuit diagram

All voltages are measured with 119 volts on the primary of the power transformer.

Resistance of coils and transformer windings are indicated in ohms on schematic circuit diagram.



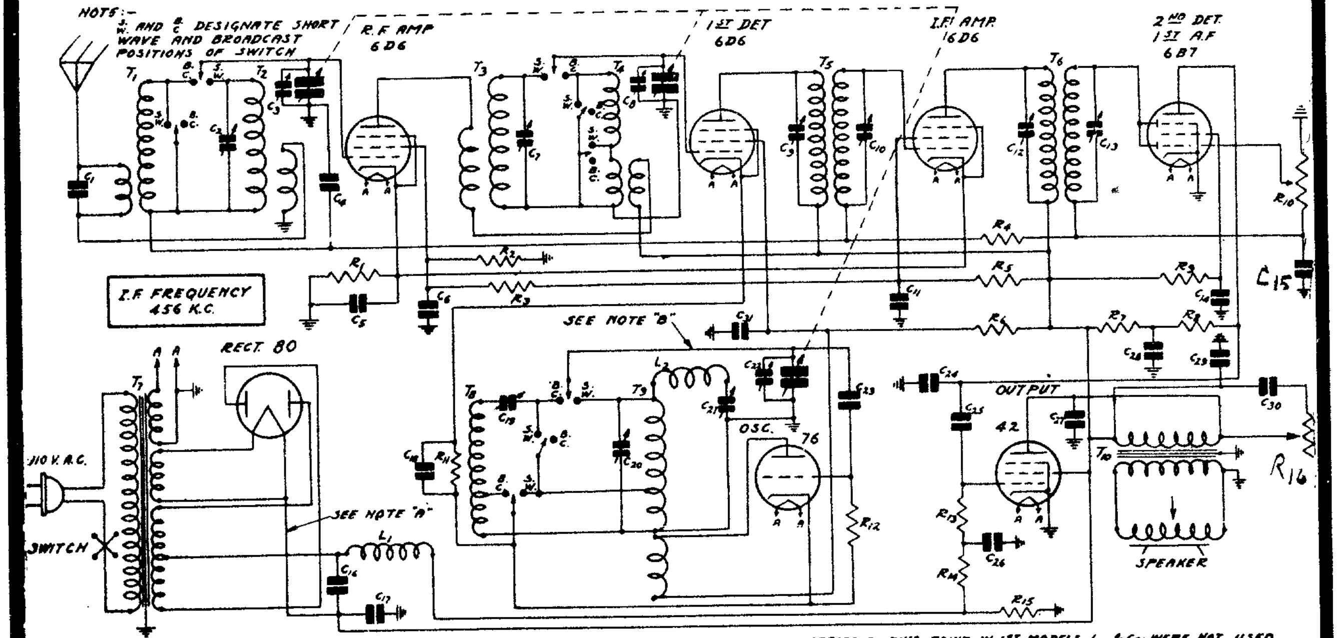


CONDENSERS No.	Value
C.1.	
C.2.	—.1x200 V.
C.3.	—.1x200 V.
C.4.	—.1x200 V.
C.5.	—.1x200 V.
C.6.	—.1x200 V.
C.7.	—.00025 Mica
C.8.	—.1x200 V.
C.9.	—.0001 Mica
C.10	—.01x400 V.
C.11	—.006x600 V.
C.12	—8 mfd. lytic x 350 V.—P-103-6
C.13	—8 mfd. lytic x 300 V.—P-103-7

RESISTORS No.	Value	
R.1.	—350	1/3 W.
R.2.	—50M	1/8 W.
R.3.	—350	1/3 W.
R.4.	—500M	1/8 W.
R.5.	—1 meg. V. C. P-101-35	
R.6.	—1 meg.	1/3 W.
R.7.	—250M	1/3 W.
R.8.	—500M	1/8 W.
R.9.	—12M	1 W.
R.10	—800M	1/3 W.
R.11	—201M	1/3 W.

Service Notes

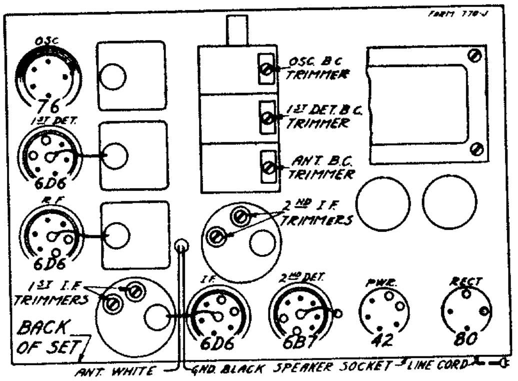
To check for open by-pass condensers, shunt each condenser with another of similar capacity and of the same voltage rating, which is known to be good, until the defective unit is located. Open by-pass condensers frequently cause oscillation and distorted tone. Defective and shorted electrolytic filter condensers cause excessive hum, motor-boating, low volume and a reduction in all D.C. voltages. Open or shorted electrolytic and by-pass condensers (across bias resistor of type 42 tube) will cause low volume and distorted tone.



NOTE "A":- FILTER CHOKE USED IN SERIES AT THIS POINT IN 1ST MODELS.

NOTE "B":- SERIES PADDER USED IN SERIES AT THIS POINT IN 1ST MODELS. L_2 & C_{21} WERE NOT USED.

Montgomery Ward Models 62-123, 62-131, 62-133, 62-142, 62-144, 62-152,



Voltages at Sockets

LINE VOLTAGE — 115

ANTENNA SHORTED TO GROUND

Type of Tube	Function	Across Fila. or Heater	Plate to Cath.	Screen to Cath.	Control Grid to Cath.	Normal Plate M. A.
6D6	R. F.	6.3	246	100	3.6(1)	5.3
6D6	1st Det.	6.6	237	97	8.0(2)	3.4
76	Osc.	6.3	115		0	4.8
6D6	I. F.	6.3	246	130	3.6(1)	8.3
6B7	2nd Det.	6.3	50(3)	40(3)	0	2.7
42	Power	6.3	230	245	17.0(4)	33.0
80	Rectifier	5.0				37.0 per plate

(1) Cathode to ground
(2) Subject to variation
(3) Read with 1,000,000 ohm meter
(4) As read across R15

Code	Capacity	Volts	Type
C1	.00025 mfd.		Moulded
C2	3-40 mmfd.		Ant. S. W. Trimmer
C3	(See 3 Gang Cond.)		Gang Trimmer
C4	.05 mfd.	200V.	Tubular
C5	.25 mfd.	200V.	Tubular
C6	.05 mfd.	400V.	Tubular
C7	3-40 mmfd.		1st Det. S. W. Trim
C8	(See 3 Gang Cond.)		Gang Trimmer
C9	90±30 mmfd.		Dual Trimmer
C10	90±30 mmfd.		Part of I. F. Assem.
C11	.25 mfd.	300V.	Tubular
C12	90±30 mmfd.		Dual Trimmer
C13	90±30 mmfd.		Part of I. F. Assem.
C14	.25 mfd.	400V.	Tubular
C15	.0001 mfd.		Moulded
C16	18.0 mfd.	300V.	Electrolytic Wet
C16	8.0 mfd.	450V.	Electrolytic Wet
C-17	8.0 mfd.	500V.	Electrolytic Wet
C17	14.0 mfd.	400V.	Electrolytic Wet
C18	.05 mfd.	200V.	Tubular
C19	300-500 mmfd.		600 K. C. Trimmer
C20	3-40 mmfd.		Osc. S. W. Trimmer
C21	70±30 mmfd.		6000 K. C. Trimmer
C22	(See 3 Gang Cond.)		Gang Trimmer
C23	.000035 mfd.		Moulded
C24	.002 mfd.	600V.	Tubular
C25	.01 mfd.	400V.	Tubular
C26	.03 mfd.	400V.	Tubular
C27	.002 mfd.	600V.	Tubular
C28	.25 mfd.	400V.	Tubular
C29	.1 mfd.	400V.	Tubular
C30	.05 mfd.	400V.	Tubular
C31	.1 mfd.	400V.	Tubular

Code	Resistance	Watts	Type
R1	200 ohm	.2	Flex. Wire Wound
R2	30,000 ohm	.5	Carbon
R3	6,000 ohm	.5	Carbon
R4	2.0 megohm	.2	Carbon
R5	16,000 ohm	1.5	Armored
R6	25,000 ohm	1.0	wire wound
R7	20,000 ohm	.2	Carbon
R8	60,000 ohm	.5	Carbon
R9	250,000 ohm	.5	Carbon
R10	500,000 ohm		Vol. Control & Switch
R11	2,500 ohm	.2	Carbon
R12	100,000 ohm	.2	Carbon
R13	500,000 ohm	.2	Carbon
R14	100,000 ohm	.2	Carbon
R15	235 ohm	2.0	Flex. Wire Wound
R16	150,000 ohm		Tone Control

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

WARDS AIRLINE RADIO

MODELS 62-425 and 62-265

The tube complement of this chassis is as follows:

- 1 Type 6A7—pentagrid oscillator and first detector.
- 1 Type 78 —remote cut-off pentode as I.F. amplifier.
- 1 Type 75 —duplex diode triode as diode detector, A.V.C. and A.F.
- 1 Type 41—pentode output tube.
- 1 Type 5Z4 or 5Y3—high vacuum rectifier.

ALIGNING INSTRUCTIONS:

CAUTION:—No aligning adjustments should be attempted without first thoroughly checking over all other possible causes of trouble, such as poor installations, open or grounded antenna systems, low line voltages, defective tubes, condensers and resistors. In order to properly align this chassis, an oscillator (generator) is absolutely necessary. No aligning adjustments should be attempted with the chassis in the cabinet. Remove the knobs and the two bolts which are used to fasten the chassis.

All adjustments should be made with a non-metallic screw driver.

RESONANCE INDICATOR:

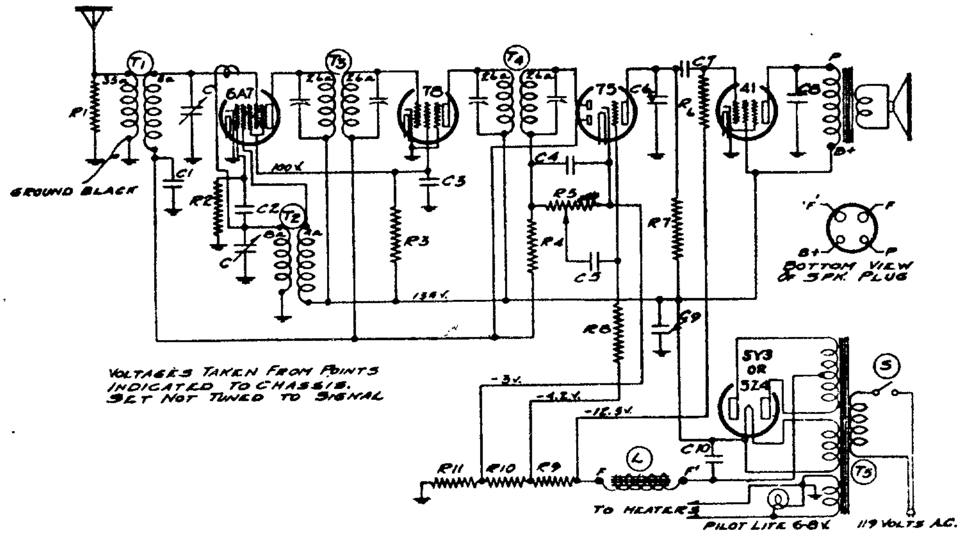
Use as a resonance indicator an output meter connected across the primary of the speaker input transformer, or by means of an adapter between the plate and screen terminals of the type 41 output tube. Use only enough signal to get a readily readable output. A low range output meter or the low scale of a multi-range voltmeter should be used.

ALIGNING I. F. TRANSFORMERS: (465 K. C.)

Connect external oscillator which has been adjusted to 465 kilocycles in series with .1 mfd. condenser, to the control grid cap of the type 6A7 tube. Ground the chassis to the oscillator. Adjust output I.F. transformer (No. 108-83) and input I.F. transformer (No. 108-82) to resonance. See label on bottom of cabinet for location of these transformers.

R. F. ALIGNMENT: (535-1720 K. C.)

1. With gang condenser in its minimum capacity position, plates entirely out of mesh, connect an external oscillator in series with a 200 mmf. condenser to tan antenna and black ground leads and make the following adjustments:
   - (a) With external oscillator set at 1720 kilocycles, adjust oscillator trimmer (rear of gang condenser).
   - (b) Re-set external oscillator to 1400 kilocycles, rotate condenser, pick up oscillator signal and adjust antenna trimmer to resonance (front section of gang condenser).
   - (c) Check sensitivity at 600 and 1000 kilocycles.



CONDENSERS

Part No.	Schematic Reference	Description	No. Used In Set
BE 100-11	C-5:C-7	.01 x 400 Volt Tubular	2
BE 100-19	C-8	.006 x 600 Volt Tubular	1
BE 100-1	C-3	.1 x400 Volt Tubular	1
BE 100-22	C-1	.05 x 200 Volt Tubular	1
BE 119-24	C-9:C-10	Dual 5 mfd. x 200 Volt Electrolytic	1
BE 129-5	C-6	.0001 Mica—Type MT—20%	1
BE 129-12	C-2:C-4	.00025 Mica—Type MT—20%	2

RESISTORS

Part No.	Schematic Reference	Description	No. Used In Set
BE 106-29	R-9:R-10 R-11	(R9, 200 ohm): (R10, 33 ohm): (R11, 100 ohm) Metal clad resistor	1
BE 130-17	R-1	10M Ohm-1/3 Watt-20%-20 V.Carbon	1
BE 130-109	R-3	7500 Ohm-½ Watt-20%-10 V. Carbon	1
BE 130-117	R-2	50M Ohm-1/10 Watt-20%-50 V.Carbon	1
BE 130-118	R-6	600M Ohm-1/3 Watt-20%-100 V.Carbon	1
BE 130-121	R-4:R-8	3.2 Meg Ohm-1/3 Watt-30%-100 V.Carbon	2
BE 130-122	R-7	210M Ohm-1/10 Watt-30%-20%-50 V. Carbon	1

COILS

Part No.	Schematic Reference	Description	No. Used In Set
BE 108-82	T3	Input I.F. Coil Assem. Comp. with Can.	1
BE-108-83	T4	Output I.F. Coil Assem. Comp. with Can.	1
BE 110-46	T2	Oscillator Coil Assembly Complete	1
BE 111-58	T1	Antenna Coil Assembly Complete	1

SOCKETS

Part No.	Schematic Reference	Description	No. Used In Set
BE 121-6		Six Prong Socket—Marked "41"	1
BE 121-6		Six Prong Socket—Marked "75"	1
BE 121-6		Six Prong Socket—Marked "78"	1
BE 121-7		Seven Prong Socket—Marked "6A7"	1
BE-121-9		Four Prong Socket—Marked "SPKR"	1
BE 121-16		Five Prong Socket—Marked "5Z4"(Octal)	1

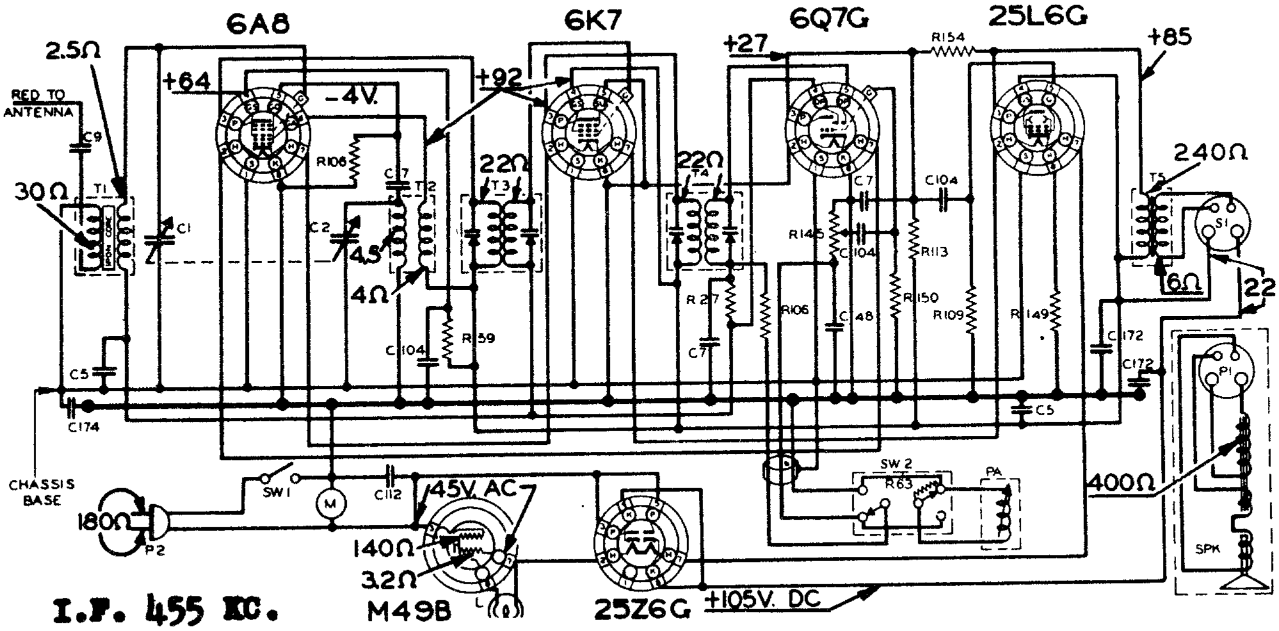
MISCELLANEOUS

Part No.	Schematic Reference	Description	No. Used In Set
BE 101-54	R-5	Volume Control and Switch (1 meg ohm)	1
BE 102-33	C	Two Gang Variable Condenser	1
BE 107-39		Line Cord & Plug	1
BE 128-8		Ivory Bakelite Knob (Model 62-265)	2
BE 131-2		Brown Bakelite Knob	1
BE 131-8		Spring for above knob	2

DIAL PARTS LIST

Part No.	Schematic Reference	Description	No. Used In Set
BE 107-28		Pilot Light Socket	1
BE 112-15		Dial Crystal only—less escutcheon	1
BE 112-160		Dial Pointer Complete with screw	1
BE 112-164		Brown Bakelite Escutcheon complete with crystal	1
BE 112-226		Ivory Bakelite Escutcheon complete with glass (Model 62-265)	1
BE 112-167A		Dial Scale	1
BE 116-13		6-8 Volt, T-51 Pilot Light Bulb	1
BE 117-59		Pointer Bushing Stud	1
BE 117-60		Pointer Bushing Assembly	1
BE 117-61		Drive Pulley	1
BE 117-68		Dial Bracket	1
BE 120-7A		Take-up Spring	1
BE 131-52		Drive Belt	1
BE 134-9		Horse Shoe Washer	1

ARVIN RADIO CHASSIS RE29 AND RE35 MODEL NUMBERS 58, 58A AND 88



I.F. 455 KC.

RESISTORS

Ref. No.	Part No.	Description
R59	17-4191	15,000 ohms ½ watt
R27	17-4788	2,000,000 ohms ½ watt
R106	17-14171	50,000 ohms ½ watt
R109	17-14174	500,000 ohms ½ watt
R-113	17-14178	250,000 ohms ½ watt
R149	17-14241	150 ohms ½ watt
R150	17-14242	5,000,000 ohms ½ watt
R154	17-14244	1,500,000 ohms ½ watt

CONDENSERS

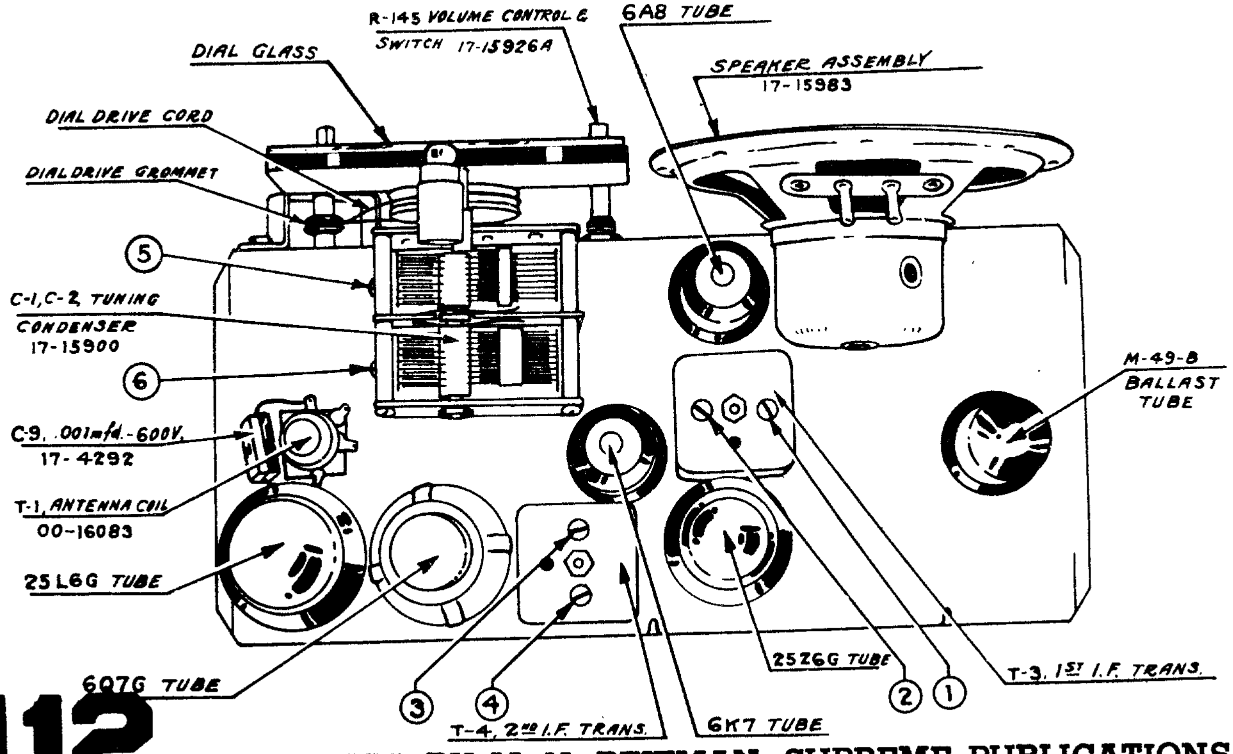
Ref. No.	Part No.	Description
C7	17-2064	.0001 mfd. 600 volt
C104	17-4206	.01 mfd. 200 volt
C48	17-4207	.00025 mfd. 600 volt
C9	17-4292	.001 mfd. 600 volt
C5	17-14015	.05 mfd. 200 volt
C112	17-14139	.05 mfd. 400 volt
C172 A & B	17-14239	20-20 mfd. 150 volt
C174	17-14248	.2 mfd 400 volt
C1-C2	17-15900	Tuning Condenser

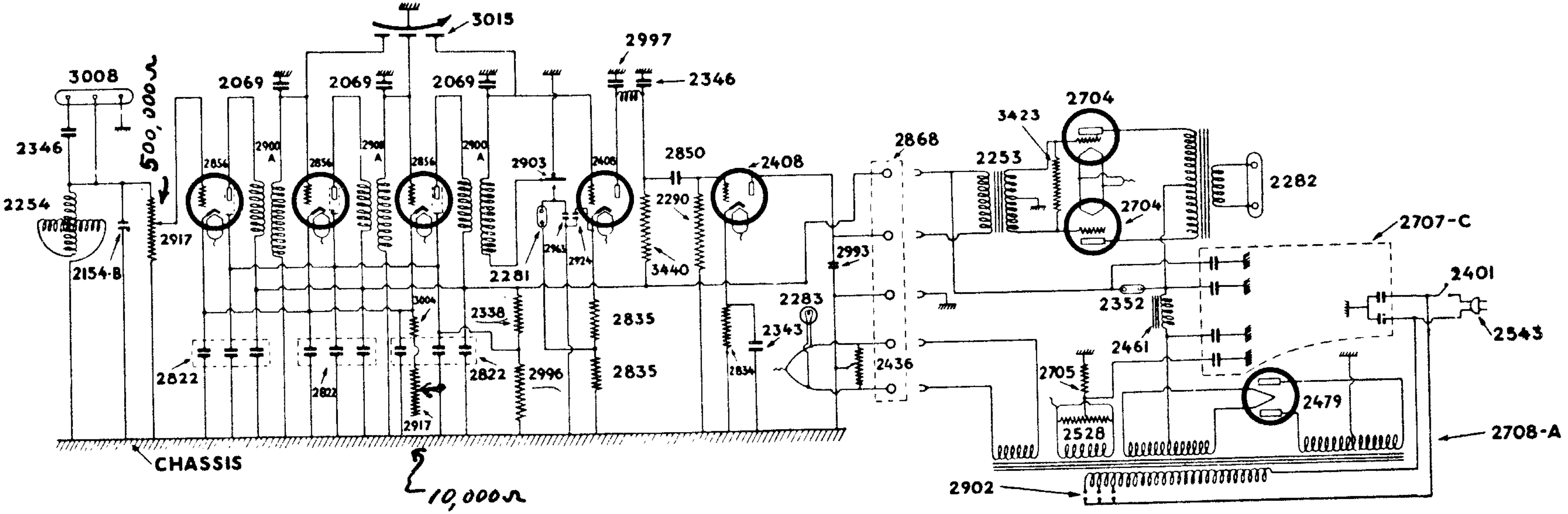
COILS and TRANSFORMERS

Ref. No.	Part No.	Description
T2	00-15979	Oscillator Coil
T-5	00-15980	Output Transformer
T3	00-16060	1st I.F. Transformer
T4	00-16061	2nd I.F. Transformer
T1	00-16083	Antenna Coil

SPEAKERS, DIAL PARTS, CABINETS & MISCELLANEOUS

Part No.	Description
10-5181	Chassis Mounting Screw per doz.
28-5188	Dial drive pulley (rubber)
83-2357	Grille cloth (ivory rayon)
29-13470	Tuning shaft retaining washer
29-13583	Dial drive cord (16" long)
34-13360	Dial drive takeup spring
17-14997	Needle cup
17-14998	Needle cup cover
19-15476	Tuning condenser drive pulley
17-15791K	Line cord and plug
29-15905	Cabinet (58A- Ivory)
32-15907	Chassis bottom cover
29-15909	Cabinet (58-Black)
32-15915	Tuning shaft bracket
29-15916	Cabinet back cover
17-15926A	Volume control switch
29-15929	Knob (wood-walnut finish)
29-15937	Knob (walnut bakelite)
23-15958	Tuning Shaft
17-15973	Dial light socket and clip
81-15974	Dial glass (black background)
17-15983	Speaker (5" diameter)
17-15989	Speaker (6" diameter)
81-16015	Dial glass (brown background)
27-16020	Cabinet (Model 88)
17-16021	Phono pickup and arm
17-16022	Phono turntable and motor
29-16024	Knob (ivory bakelite)
17-16065	Radio-Phono switch
29-16068	Knob (Radio-Phono switch)





National Carbon Co.
Models 50, 52, 53, 54

FIXED CONDENSERS

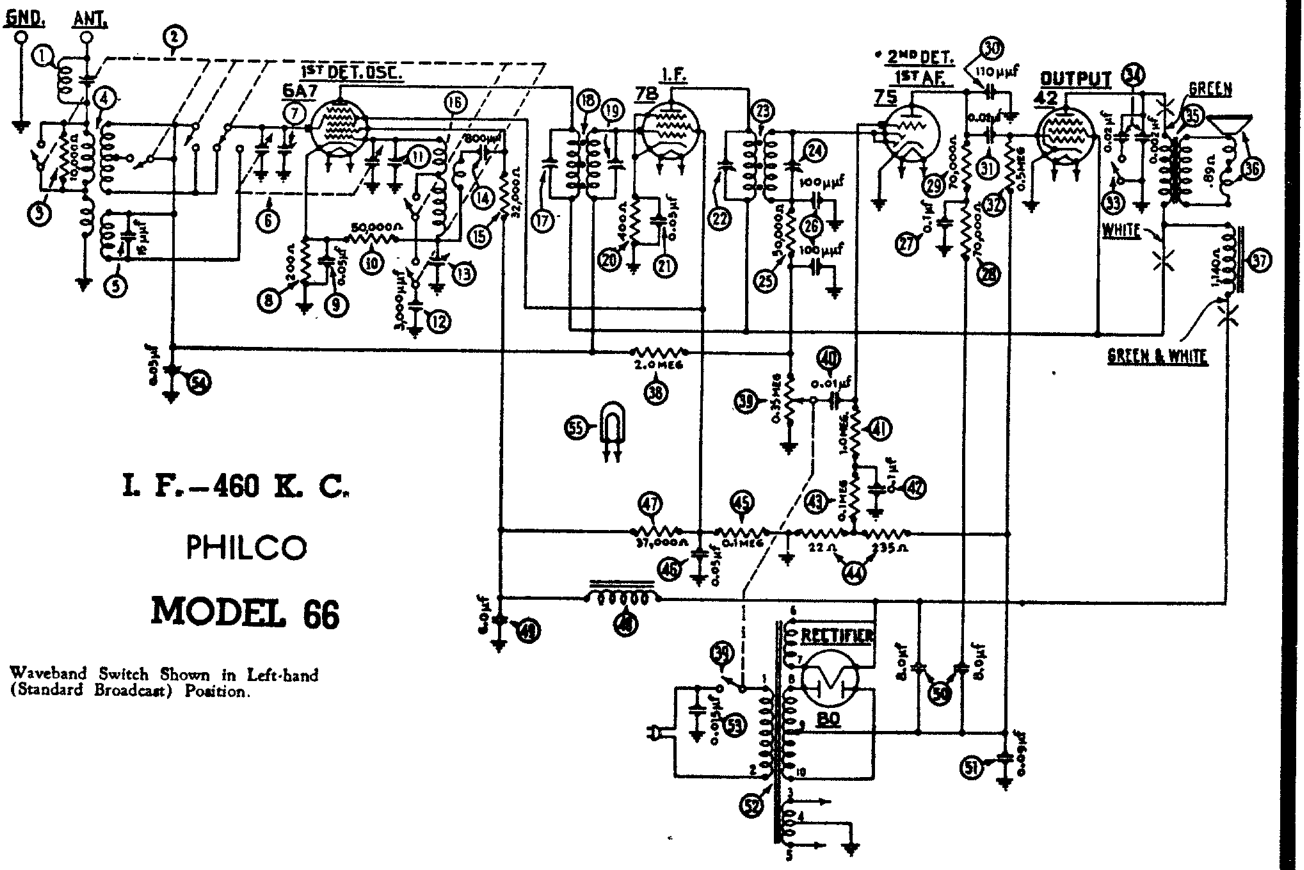
The fixed condensers used in Series 50 Receivers are listed below:

Part Number	Capacity, mfd.	Function
2346	.0001	Antenna series and detector plate by-pass.
2822	three 0.5 in one can	Screen grid, plate and cathode by-pass.
2924	1.0	Detector bias resistor by-pass.
2850	.01	AF coupling condenser.
2343	2.0	AF bias resistor by-pass.
2963	.002	Phonograph pick-up by-pass.
2993	.004	Audio by-pass.
2997	.0005	RF filter condenser.

FIXED RESISTORS

Part Number	Resistance
2290	2 megohm
2835	4000 ohms
3440	125000 ohms
3004	200 ohms
2834	3000 ohms
2338	2500 ohms
2996	2250 ohms

VOLUME CONTROL: 500,000 Ω AND 10,000Ω



I. F.—460 K. C.

PHILCO

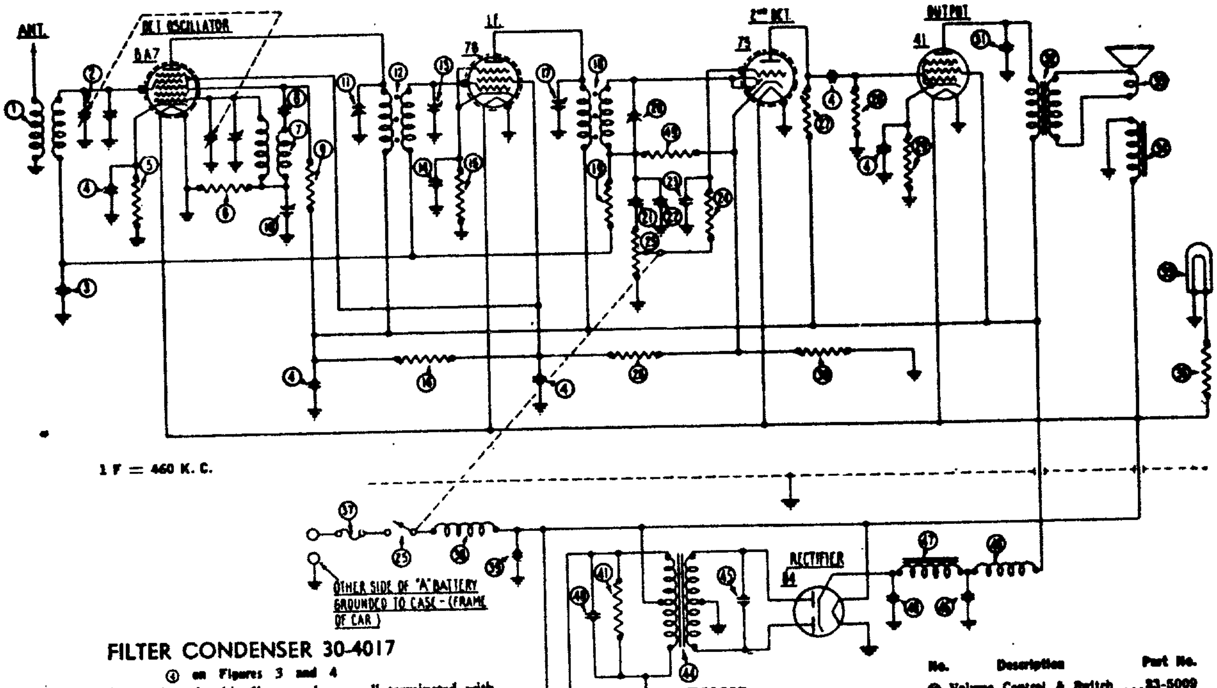
MODEL 66

Waveband Switch Shown in Left-hand (Standard Broadcast) Position.

No. on Figs.	Description	Part No.
①	Wave Trap	38-5199
②	Wave-band Switch	42-1066
③	Resistor (10,000 ohms) (Brown-Black-Orange)	33-1000
④	Antenna Transformer	32-1412
⑤	Condenser (.000015 Mfd.)	30-1030
⑥	Tuning Condenser Assembly	31-1231
⑦	Compensating Condenser (ANT)	Part of ⑥
⑧	Resistor (200 ohms Flexible) (Red-Black-Brown)	7217
⑨	Condenser (.05 Mfd. Tubular)	30-4020
⑩	Resistor (50,000 ohms) (Green-Green-Orange)	6098
⑪	Compensating Condenser (OSC. HF)	Part of ⑥
⑫	Condenser (.003 Mfd. Mica)	30-1022
⑬	Compensating Condenser (Osc. I. F.)	04000-S
⑭	Condenser (.0008 Mfd. Mica)	5378
⑮	Resistor (32,000 ohms) (Orange-Red-Orange)	5279
⑯	Oscillator Transformer	32-1413
⑰	Compensating Condenser (1st I. F. Pri.)	04000M
⑱	1st I. F. Transformer	32-1414
⑱	Compensating Condenser (1st I. F. Secondary)	04000M
⑳	Resistor (400 ohms Flexible)	33-3016
㉑	Condenser (.05 Mfd. Tubular)	30-4020
㉒	Compensating Condenser (2d I. F. Primary)	04000M
㉓	2d I. F Transformer	32-1415
㉔	Compensating Condenser (2d I. F. Secondary)	04000J
㉕	Resistor (50,000 ohms) (Green-Brown-Orange)	6098
㉖	Condenser (.0001 Mfd. Twin Bakelite Block)	8035-B
㉗	Condenser (.1 Mfd. Tubular)	30-4170
㉘	Resistor (70,000 ohms) (Violet-Black-Orange)	33-1115
㉙	Resistor (70 000 ohms) (Violet-Black-Orange)	33-1115
㉙	Condenser (.00011 Mfd. Mica)	30-1006
㉑	Condenser (.02 Mfd. Tubular)	30-4113
㉜	Resistor (500,000 ohms) (Yellow-White-Yellow)	6097
㉝	Tone Control	30-4192
㉞	Condensers in Tone Control	Inside ㉝

No. on Figs.	Description	Part No.
㉟	Output Transformer	32-7019
㊱	Voice Coil & Cone Assembly (S-12)	36-3014
㊲	Field Coil and Pot. Assembly (S-12)	36-3341
㊳	Resistor (2 Megohms) (Red-Black-Green)	33-1025
㊴	Volume Control and On-Off Switch	33-5006
㊵	Condenser (.01 Mfd.) (Bakelite Block)	3903-AB
㊶	Resistor (1 Megohm) (Brown-Black-Green)	33-1096
㊷	Condenser (.1 Mfd.)	30-4122
㊷	Resistor (.1 Meg.) (White-White-Orange)	6099
㊹	Resistor (B. C. Wire-wound) (22, 235 ohms)	33-3037
㊺	Resistor (.1 Meg.) (White-White-Orange)	6099
㊵	Condenser (.05 Mfd. Tubular)	30-4123
㊼	Resistor (37,000 ohms) (Orange-Violet-Orange)	33-1098
㊽	Filter Choke	32-7018
㊾	Condenser (Electrolytic—6 Mfd.)	30-2021
㊿	Condenser (Electrolytic—8-8 Mfd.)	30-2028
(51)	Condenser (.09 Mfd. Bakelite Block)	4989-D
(52)	Power Transformer	8046
(53)	Condenser (.015 Mfd. Bakelite Block)	3793-W
(54)	Condenser (.05 Mfd. Tubular)	30-4020
(55)	Dial Light	6608
	Four Prong Socket	7544
	Six Prong Socket	7547
	Seven Prong Socket	27-6005
	Tube Shield	28-1107
	Chassis Mounting Screw	W-567
	Chassis Mounting Washer (Metal)	W-315
	Chassis Mounting Washer (Rubber)	5189
	Knob (Large)	27-4051
	Knob (Small)	27-4052
	Dial Assembly	31-1234
	Dial Scale	27-5057
	A. C. Cord and Plug Assembly	L-943A

PHILCO AUTO RADIO MODEL 5



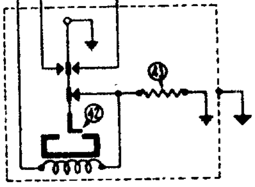


FIGURE 3

FILTER CONDENSER 30-4017

④ on Figures 3 and 4

There are five sections in this filter condenser, all terminated with wire leads. The two green leads connect to the .1 mfd. section, which is used for coupling the plate output of the 75 tube to the grid of the 41 tube.

The remaining four sections are all grounded to the can on one side. The white leads connect to two .25 mfd. sections. The first section is connected to the cathode of the 6A7 tube. The second section is connected to the screen of the 78 tube.

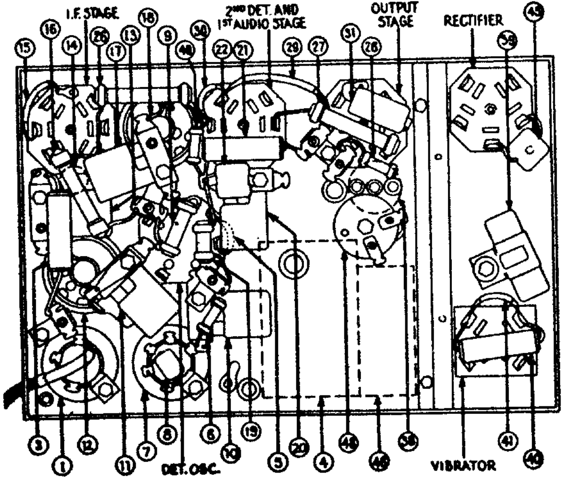
The red lead from the .5 mfd. section is connected to the B+ side of all the plate circuits. A 20 mfd. section terminates in a black lead, which in turn is connected to the cathode of the 41 tube.

FILTER CONDENSER 30-2008

㊻ on Figures 3 and 4

The condenser consists of two sections, a 4 mfd. section and an 8 mfd. section, both of them grounded on one side.

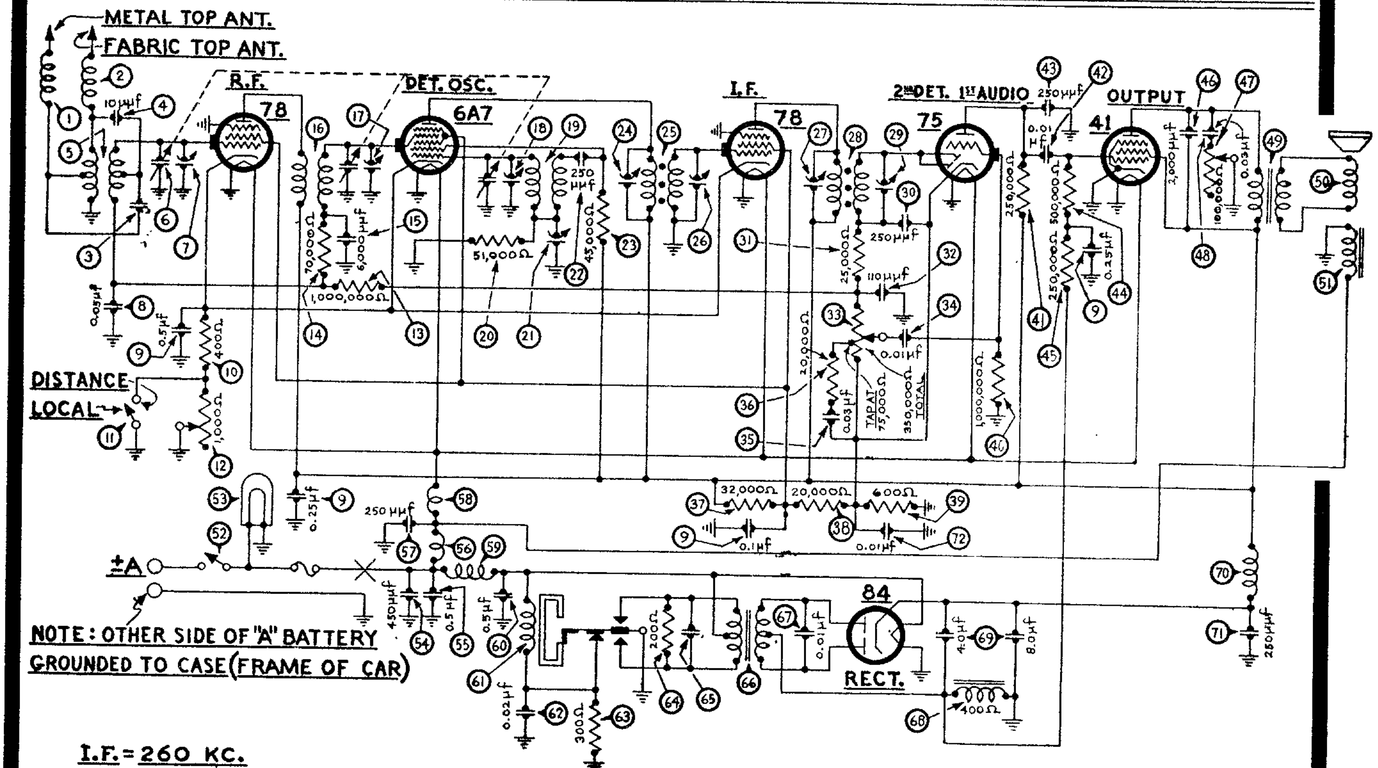
The 4 mfd. section terminates in a red lead, which is connected to the cathode of the 84 tube. The 8 mfd. section terminates in a green lead, which is connected between the two chokes in the rectifier filter circuit.



PARTS LIST

No.	Description	Part No.
①	Antenna Transformer	33-1084
②	Tuning Condenser	31-1019
③	Condenser (.05) mfd.)	30-4020
④	Filter Condenser (.25, .25, .5, 20 mfd.)	30-4017
⑤	Resistor (200 ohms)	7217
⑥	Resistor (13,008 ohms)	3367
⑦	Oscillator Transformer	33-1085
⑧	Condenser (250 mmfd.)	3083
⑨	Resistor (15,000 ohms)	6206
⑩	Padder	040008
⑪	Padder	04000J
⑫	First I. F. Transformer	33-1000
⑬	Padder	04000Y
⑭	Condenser (.5 mfd.)	30-4016
⑮	Resistor (1008 ohms)	33-3017
⑯	Resistor (10,000 ohms)	4412
⑰	Padder	04000D
⑱	Second I. F. Transformer	32-1087
⑲	Resistor (1,000,000 ohms)	4408
⑳	Padder	04000M
㉑	Condenser (.05 mfd.)	30-4020
㉒	Condenser (250 mmfd.)	3082
㉓	Condenser (500 mmfd.)	3918
㉔	Resistor (100,000 ohms)	6060
㉕	Volume Control & Switch	33-5009
㉖	Resistor (32,000 ohms)	3535
㉗	Resistor (250,000 ohms)	3748
㉘	Resistor (500,000 ohms)	6097
㉙	Resistor (700 ohms)	6443
㉚	Resistor (400 ohms)	33-3016
㉛	Condenser (6,000 mmfd.)	30-1008
㉜	Output Transformer	32-7008
㉝	Cone & Voice Coil	02861
㉞	Field Coil Assembly	36-3046
㉟	Pilot Lamp	6008
㊱	Resistor (7 ohms)	5116
㊲	Fuse (15 amp.)	7227
㊳	R. F. Choke	32-1032
㊴	Condenser (.5 mfd.)	30-4015
㊵	Condenser (.05 mfd.)	30-4020
㊶	Resistor (200 ohms)	7217
㊷	Vibrator	41-3186
㊸	Resistor (200 ohms)	7217
㊹	Transformer	33-7030
㊺	Condenser (6000 mmfd.)	30-1002
㊻	Condenser (4 mfd., 5 mfd.)	30-2008
㊼	Filter Choke	32-7036
㊽	R. F. Choke (high voltage)	32-1078
㊾	Resistor (250,000 ohms)	4410
	Control Assembly (direct drive)	42-5008
	Tuning Shaft	26-8006
	Volume Shaft	28-8007
	Dial	27-5006
	Knob	03334
	Fuse	7227
	Fuse Insulator	27-7181
	Antenna Lead	38-5131
	"A" Lead	38-5296
	Bracket (control mtg.)	6035
	Studs (set mtg.)	28-8036
	Nuts (set mtg.)	W55A
	Strap (control mtg.)	04344

PHILCO AUTO RADIO MODEL T11

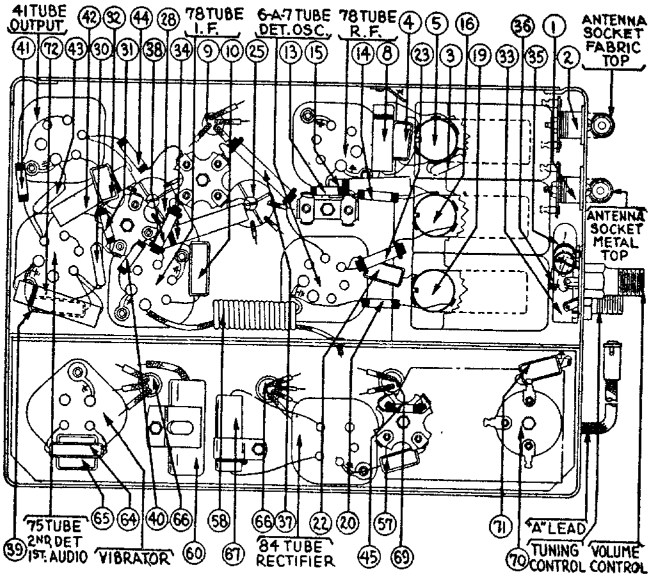


I.F. = 260 KC.

PARTS LIST

No.	Description	Part No.
①	Antenna Choke	38-7210
②	Antenna Choke	38-7210
③	Condenser (70 mmfd.)	30-1068
④	Condenser (10 mmfd.)	30-1065
⑤	Antenna Transformer	32-1925
⑥	Tuning Condenser	31-1674
⑦	First Padder (on Tun. Cond.)	
⑧	Condenser (.05 mfd.)	30-4444
⑨	Condenser (.1-.25-.25-.5 mfd.)	30-4374
⑩	Resistor (400 ohms)	33-1211
⑪	Sensitivity Control Switch	42-1140
⑫	Sensitivity Control	33-5129
⑬	Resistor (1,000,000 ohms)	33-510344
⑭	Resistor (70,000 ohms)	33-370334
⑮	Condenser (6,000 mmfd.)	30-4445
⑯	R. F. Transformer	32-1926
⑰	Second Padder (on Tun. Cond.)	
⑱	Third Padder (on Tun. Cond.)	
⑲	Oscillator Transformer	32-1927
⑳	Resistor (51,000 ohms)	33-351344
㉑	Low Frequency Padder	31-6056
㉒	Condenser (250 mmfd.)	30-1032
㉒	Resistor (45,000 ohms)	33-345344
㉔	Padder (Pri. 1st I. F. Trans.)	
㉕	First I. F. Transformer	32-1260
㉓	Padder (Sec. 1st I. F. Trans.)	
㉗	Padder (Pri.. 2nd I. F. Trans.)	
㉘	Second I. F. Transformer	32-2164
㉙	Padder (Sec 2nd I. F. Trans.)	
㉚	Condenser (250 mmfd.)	30-1032
㉛	Resistor (25,000 ohms)	33-325344
㉜	Condenser (110 mmfd.)	30-1031
㉝	Volume Control (350,000 ohms)	33-5121
㉞	Condenser (.01 mfd.)	30-4124
㉟	Condenser (.03 mfd.)	30-4449
㊱	Resistor (20,000 ohms)	33-320334
㊲	Resistor (32,000 ohms)	33-332434
㊳	Resistor (20,000 ohms)	33-320334
㊴	Resistor (600 ohms)	33-1212
㊵	Resistor (1,000,000 ohms)	33-510344
㊶	Resistor (250,000 ohms)	33-424344
㊷	Condenser (.01 mfd.)	30-4145
㊸	Condenser (250 mmfd.)	30-1032
㊹	Resistor (500,000 ohms)	33-449344
㊺	Resistor (250,000 ohms)	33-424344
㊻	Condenser (2,000 mmfd.)	30-4177

No.	Description
㊼	Tone Control
㊽	Condenser (.03 mfd.)
㊾	Output Transformer
㊿	Cone & Voice Coil
(51)	Field Coil Assembly
(52)	On & Off Switch
(53)	Pilot Lamp
(54)	Condenser (450 mmfd.)
(55)	Condenser (.5 mfd.)
(56)	"A" Choke
(57)	Condenser (250 mmfd.)
(58)	Filament Choke
(59)	Vibrator Choke
(60)	Condenser (.5 mfd.)
(61)	Vibrator
(62)	Condenser (.02 mfd.)
(63)	Resistor (300 ohms)
(64)	Resistor (200 ohms)
(65)	Condenser (.05 mfd.)
(66)	Power Transformer
(67)	Condenser (.01 mfd.)
(68)	Filter Choke
(69)	Filter Condenser (4-8 mfd.)
(70)	R. F. Choke
(71)	Condenser (250 mmfd.)
(72)	Condenser (.01 mfd.)



CHANGES — "Run Numbers" are stamped on the chassis sub-base for identification. These "Run Numbers" are changed consecutively as major changes are made in the Receiver wiring and parts.

RUN No. 3 — A 250 mmfd. condenser has been added to the Receiver. One side is connected between resistors ㊲ and ㊳ and the other side to ground.

RUN No. 4 — The 250 mmfd. condenser added in Run No. 3 has been removed.

RUN No. 5 — The Antenna Transformer ⑤ is replaced with a new type having the same part number. It can be identified by the red and blue paint marks on the fibre.

RUN No. 6 — Condenser (71) has been removed from the cathode side of the "B" choke (70) and connected to the plate side of choke (70).

RUN No. 6A — A 250 mmfd. condenser has been added to the Receiver. One side is connected between resistors ㊹ and ㊺ and the other side to ground.

RUN No. 8 — Condenser (65) removed (1250 mmfd.). Part No. 30-4020 added. (.05 mfd.)

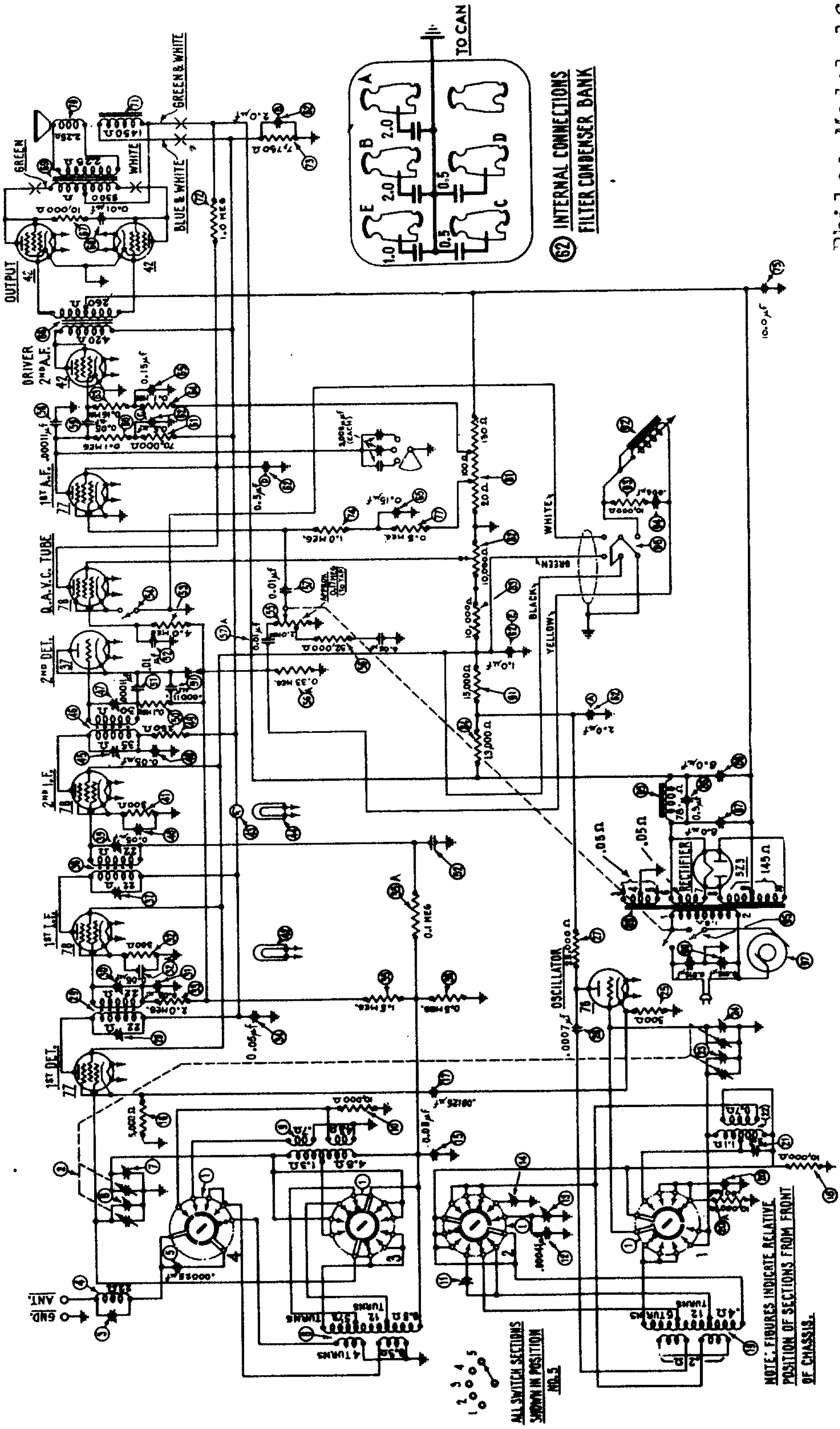
RUN No. 13 — The 250 mmfd. condenser that was added in Run No. 6A has been removed.

RUN No. 14 — Resistor ⑩ removed (400 ohms). Part No. 33-1225 added. (350 ohms.)

No major changes were involved in Run Nos. 2, 7, 9, 10, 11, 12.

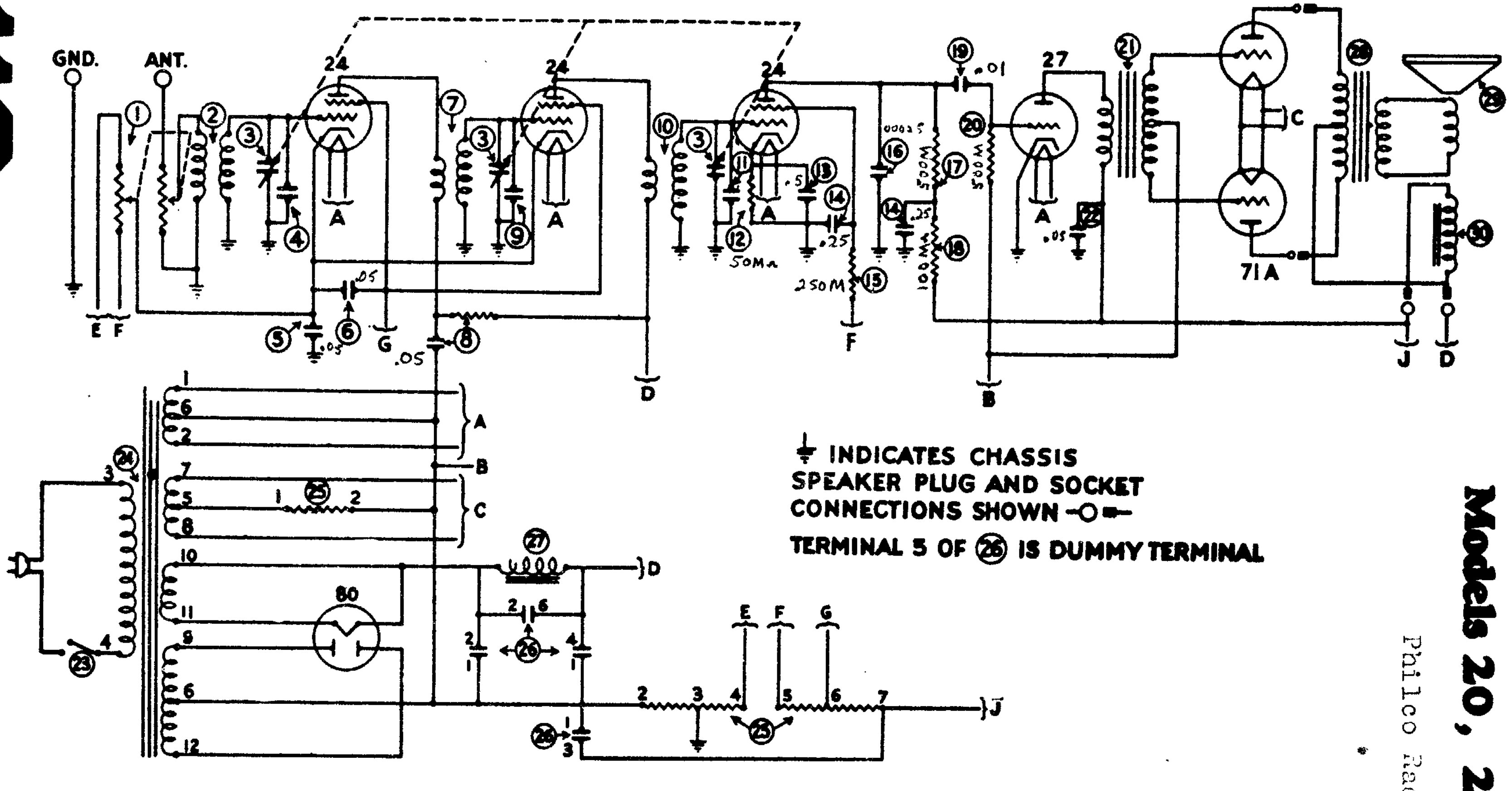
MODEL 16

Philco Model 16
I.F. 460 KC.



Models 20, 20-A and 21

Philco Radio

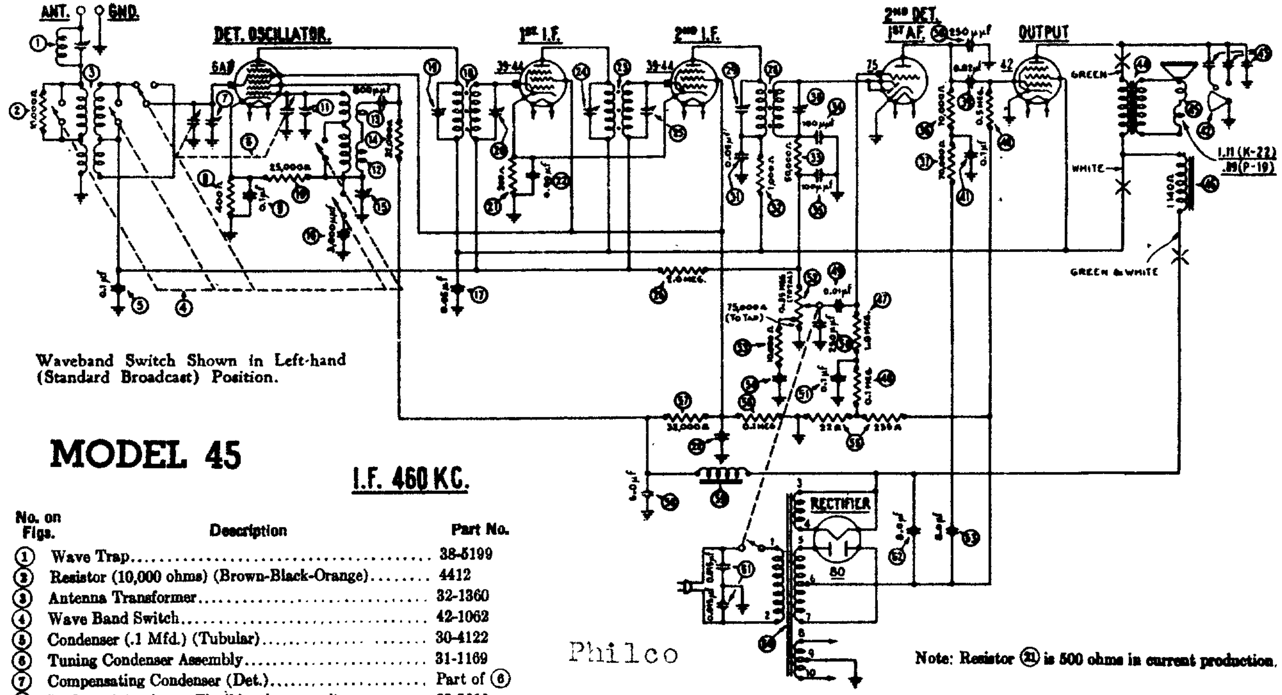


INDICATES CHASSIS
SPEAKER PLUG AND SOCKET
CONNECTIONS SHOWN

TERMINAL 5 OF ㉖ IS DUMMY TERMINAL

No.	Description	Part No.
①	Volume Control	4094
②	First R. F. Transformer	3884-N
③	Tuning Condenser	4200-A
④	First Compensating Condenser (Part of Tuning Condenser Assembly)	
⑤	By-Pass Condenser (.05)	3615-J
⑥	By-Pass Condenser (.05)	3615-M
⑦	Second R. F. Transformer	3884-P
⑧	By-Pass Condenser (.05) and Resistor	3615-K
⑨	Second Compensating Condenser (Part of Tuning Condenser Assembly)	
⑩	Third R. F. Transformer	3884-P
⑪	Third Compensating Condenser (Part of Tuning Condenser Assembly)	
⑫	Resistor (50,000)	4237
⑬	By-Pass Condenser (.5)	3583
⑭	By-Pass Condenser (double .25)	3557
⑮	Resistor (250,000)	3768
⑯	By-Pass Condenser (.00025)	3082
⑰	Resistor (500,000)	3769
⑱	Resistor (100,000)	3767
⑲	Condenser (.01)	3903-F
⑳	Resistor (500,000)	3769
㉑	Push-pull Input Transformer	4232
㉒	By-Pass Condenser (.05)	3615-L
㉓	On-off Switch	4095
㉔	Power Transformer (50-60 cycle)	4234
	Power Transformer (25-60 cycle)	4268
㉕	B. C. Resistor	4230
㉖	Filter Condenser (50-60 cycle)	4235
	Filter Condenser (25-60 cycle)	4269
㉗	Filter Choke	4231
㉘	Push-Pull Output Transformer	2766
㉙	Voice Coil and Cone	2769-B
㉚	Field Coil	2768

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



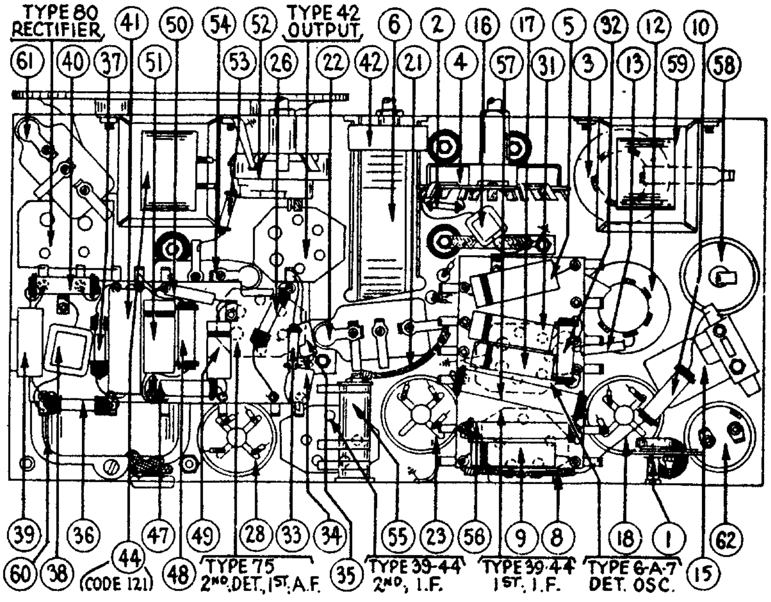
Note: Resistor ㉑ is 500 ohms in current production.

Waveband Switch Shown in Left-hand (Standard Broadcast) Position.

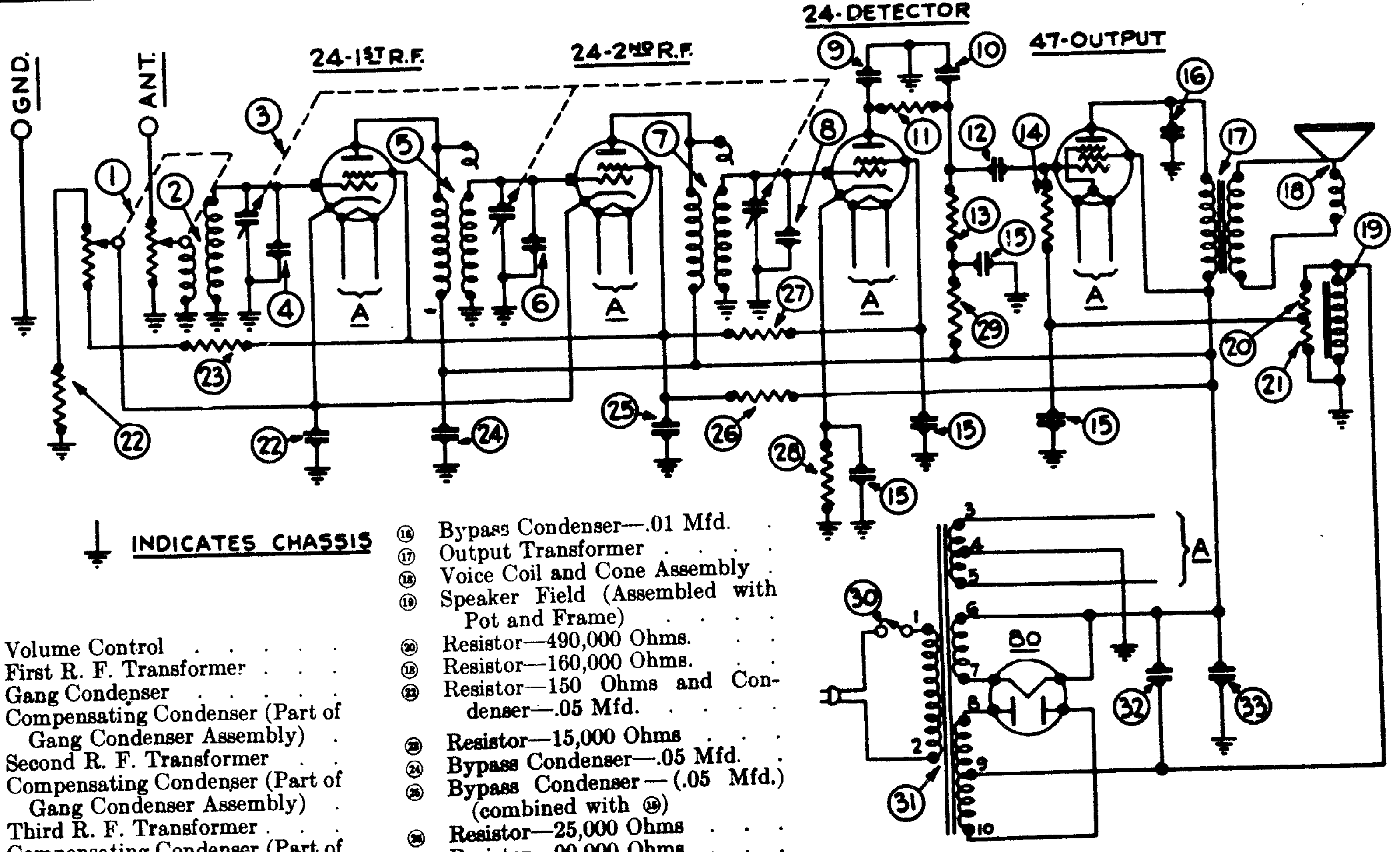
MODEL 45

I.F. 460 KC.

No. on Figs.	Description	Part No.
①	Wave Trap	38-5199
②	Resistor (10,000 ohms) (Brown-Black-Orange)	4412
③	Antenna Transformer	32-1360
④	Wave Band Switch	42-1062
⑤	Condenser (.1 Mfd.) (Tubular)	30-4122
⑥	Tuning Condenser Assembly	31-1169
⑦	Compensating Condenser (Det.)	Part of ⑥
⑧	Resistor (400 ohms—Flexible wire wound)	33-3016
⑨	Condenser (.1 Mfd.) (Tubular)	30-4122
⑩	Resistor (25,000 ohms) (Red-Green-Orange)	4516
⑪	Compensating Condenser (Osc. H. F.)	Part of ⑥
⑫	Oscillator Transformer	32-1361
⑬	Condenser (.0008 Mfd.—Mica)	5878
⑭*	Resistor (32,000 ohms) (Orange-Red-Orange)	3525
⑮	Compensating Condenser (Osc. L. F.)	04000-S
⑯	Condenser (.003 Mfd.—Mica)	7301
⑰	Condenser (.05 Mfd.—Tubular)	30-4123
⑱	1st I. F. Transformer	32-1362
⑲	Compensating Condenser (1st I. F. Primary)	Part of ⑯
⑳	Compensating Condenser (1st I. F. Secondary)	Part of ⑯
㉑	Resistor (500 ohms—Flexible wire wound)	6977
㉒	Condenser (.09 Mfd. twin) (Bakelite block)	4989-Z
㉓	2d I. F. Transformer	32-1363
㉔	Compensating Condenser (2d I. F. Primary)	Part of ⑯
㉕	Compensating Condenser (2d I. F. Secondary)	Part of ㉓
⑳	Resistor (2 megs.) (Red-Black-Green)	5872
㉗	Pilot Lamp	6608
㉘	3d I. F. Transformer	32-1364
⑳	Compensating Condenser—3d I. F. Primary	Part of ⑯
⑳	Compensating Condenser—3d I. F. Secondary	Part of ⑯
㉛	Condenser (.05 Mfd. Tubular)	30-4123
㉛	Resistor (1,000 ohms) (Brown-Black-Red)	5837
㉝	Resistor (50,000 ohms) (Green - Brown-Orange)	4518
㉞	Condenser (.0001 Mfd. Mica)	30-1051
㉟	Condenser (.0001 Mfd. Mica)	30-1051
(36)	Resistor (70,000 ohms) (Violet-Black-Orange)	5385
(37)	Resistor (70,000 ohms) (Violet-Black-Orange)	5385
(38)	Condenser (.00025 Mfd. Mica)	5858
(39)	Condenser (.02 Mfd. Tubular)	30-4113
(40)	Resistor (.5 meg.) (Yellow-White-Yellow)	4517
(41)	Condenser (.1 Mfd.) (Tubular)	30-4170
(42)	Tone Control	30-4178
(43)	Condensers	Inside 42
(44)	Output Transformer (Code 121)	32-7041
	Output Transformer (Code 122)	2580
(45)	Voice Coil & Cone Assembly	
	P-19 (Compact)	36-3027
	K-22 (Lowboy)	36-3174
(46)	Field Coil and Pot Assembly	
	P-19 (Compact)	36-3298
	K-22 (Lowboy)	02767



No. on Figs.	Description	Part No.
(47)	Resistor (1 meg.) (Brown-Black-Green)	4409
(48)	Resistor (.1 meg) (White-White-Orange)	4411
(49)	Condenser (.01 Mfd. Tubular)	30-4124
(50)	Condenser (.00025 Mfd. Mica)	5858
(51)	Condenser (.1 Mfd. Tubular)	30-4122
(52)	Volume Control and On-Off Switch	33-5066
(53)	Resistor 10,000 ohms (Brown-Black-Orange)	33-1000
(54)	Condenser (Code 121) (.05 Mfd.) (Bakelite Block)	3615-W
	Condenser (Code 122) (.09 Mfd.) (Bakelite Block)	4989-AM
(55)	Voltage Divider (BC Resistor 22—235 ohms) (Wire wound)	33-3037
(56)	Resistor .1 meg (White-White-Orange)	3767
(57)	Resistor 32,000 ohms (Orange-Red-Orange)	33-1026
(58)	Condenser (Electrolytic—6 Mfd.)	30-2020
(59)	Filter Choke	32-7018
(60)	Power Transformer	32-7226
(61)	Condenser (.015 Mfd. twin—Bakelite block)	3793-E
(62) (63)	Condenser (Electrolytic 8—8 Mfd. 450 Volts)	30-3028

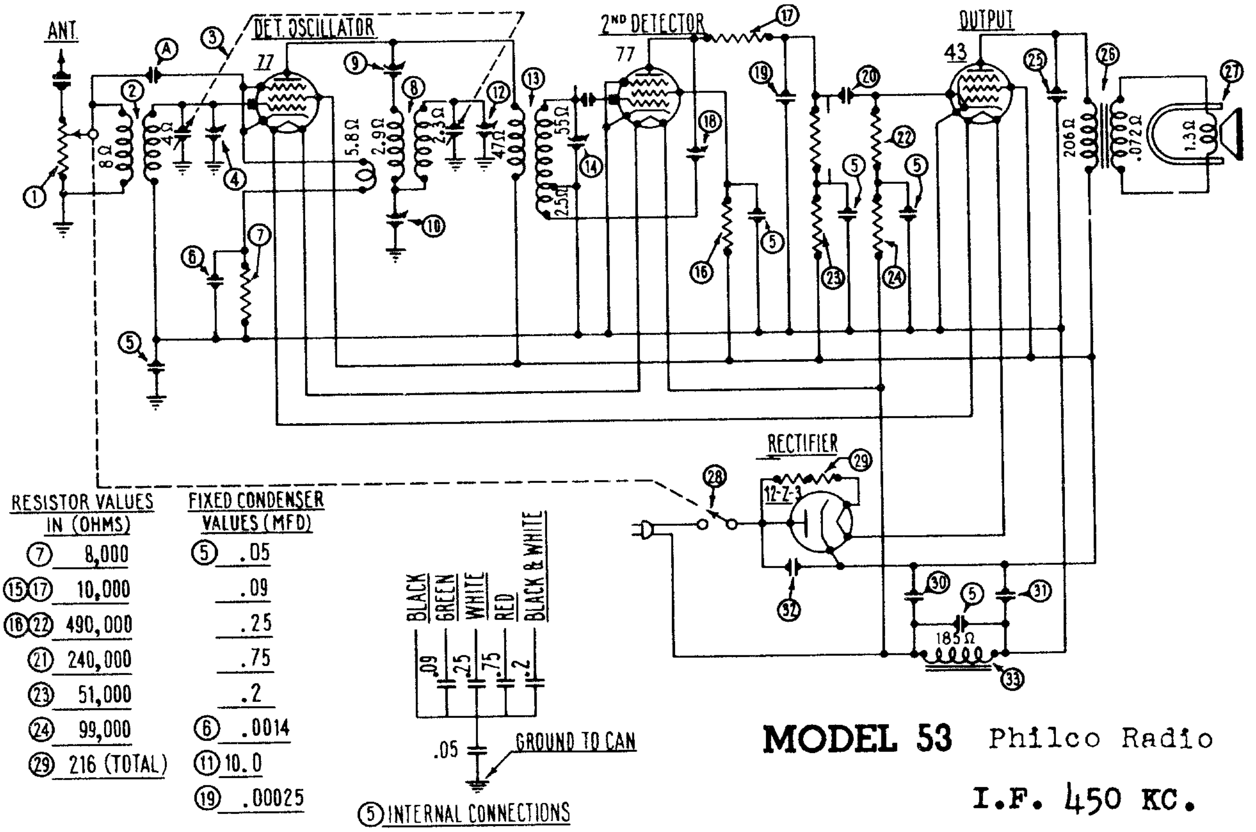


INDICATES CHASSIS

①	Volume Control
②	First R. F. Transformer
③	Gang Condenser
④	Compensating Condenser (Part of Gang Condenser Assembly)
⑤	Second R. F. Transformer
⑥	Compensating Condenser (Part of Gang Condenser Assembly)
⑦	Third R. F. Transformer
⑧	Compensating Condenser (Part of Gang Condenser Assembly)
⑨	Condenser—250 Mmf.
⑩	Condenser—250 Mmf.
⑪	Resistor—10,000 Ohms
⑫	Condenser—.01 Mfd.
⑬	Resistor—240,000 Ohms
⑭	Resistor—490,000 Ohms
⑮	Bypass Condenser (.15 Mfd., .25 Mfd., 2-.5 Mfd., .1 Mfd.) 50-60 cycles
⑯	Bypass Condenser—.01 Mfd.
⑰	Output Transformer
⑱	Voice Coil and Cone Assembly
⑲	Speaker Field (Assembled with Pot and Frame)
⑳	Resistor—490,000 Ohms.
㉑	Resistor—160,000 Ohms.
㉒	Resistor—150 Ohms and Condenser—.05 Mfd.
㉓	Resistor—15,000 Ohms
㉔	Bypass Condenser—.05 Mfd.
㉕	Bypass Condenser—(.05 Mfd.) (combined with ⑮)
㉖	Resistor—25,000 Ohms
㉗	Resistor—99,000 Ohms
㉘	Resistor—32,000 Ohms
㉙	Resistor—99,000 Ohms
㉚	On-Off Switch
㉛	Power Transformer—50-60 cycles
㉜	Electrolytic Condenser—6 Mfd.—50-60 cycles
	Electrolytic Condenser—10 Mfd. 25-40 cycles
㉝	Electrolytic Condenser—6 Mfd.—

Philco Radio

MODELS 50 AND 50-A

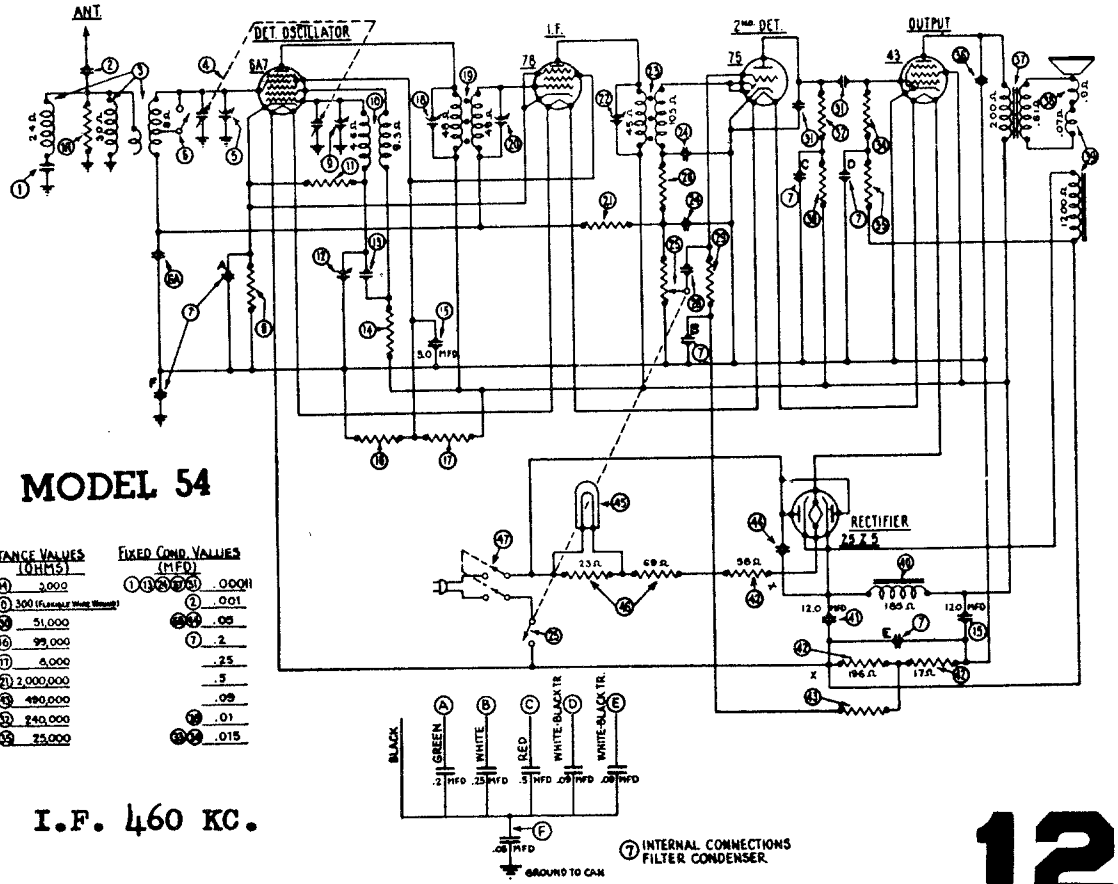


RESISTOR VALUES IN (OHMS)	
⑦	8,000
⑮⑰	10,000
⑯㉒	490,000
㉑	240,000
㉓	51,000
㉔	99,000
㉙	216 (TOTAL)

FIXED CONDENSER VALUES (MFD)	
⑤	.05
	.09
	.25
	.75
	.2
⑥	.0014
⑪	10.0
⑲	.00025

MODEL 53 Philco Radio

I.F. 450 KC.



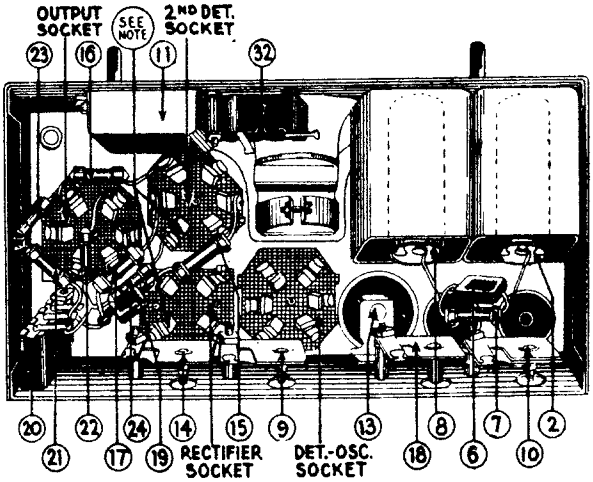
MODEL 54

RESISTANCE VALUES (OHMS)	
⑱⑭	2,000
⑥	300 (FLEXIBLE WIRE WOUND)
⑪㉖㉚	51,000
⑯	99,000
⑰	8,000
㉑	2,000,000
㉕㉞㉝	490,000
㉜	240,000
㉟	25,000

FIXED COND. VALUES (MFD)	
①⑬㉔㉗㉛	.00011
②	.001
⑳⑭	.05
⑦	.2
	.25
	.5
	.09
㉘	.01
㊱㊳	.015

I.F. 460 KC.

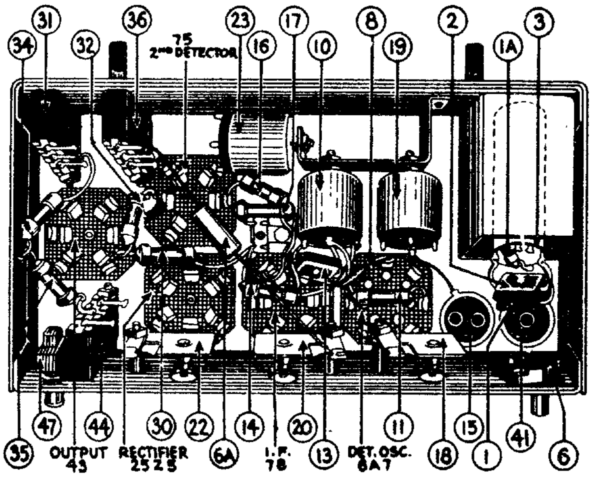
Model 53



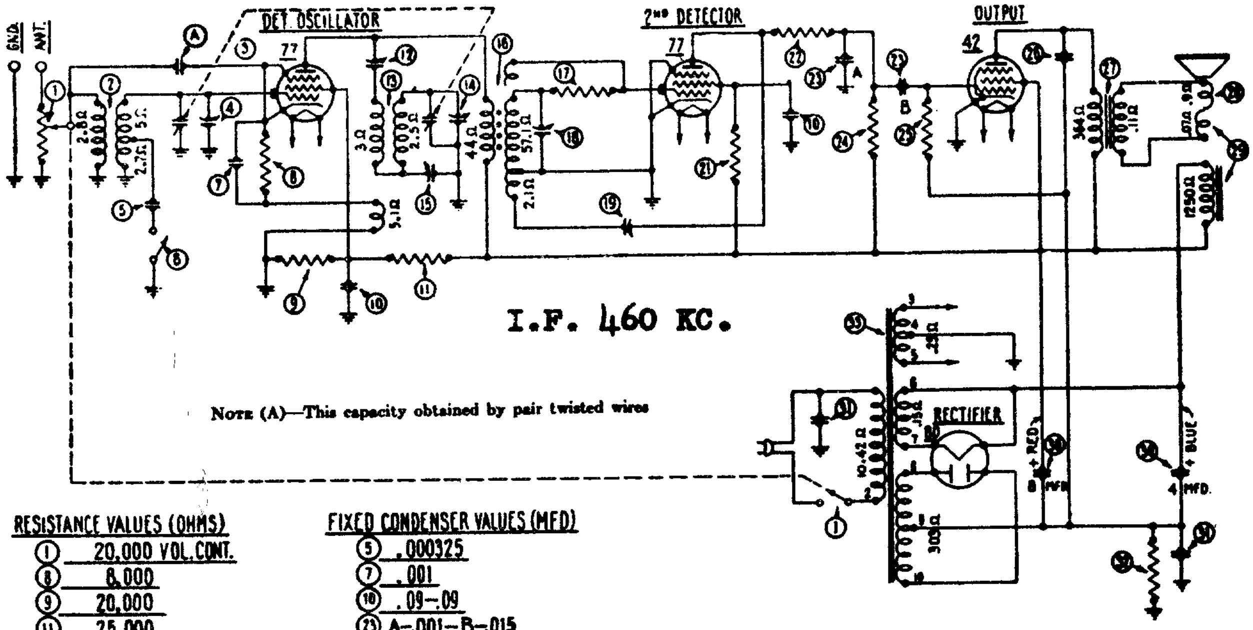
No. on Figs. 2, 3 and 4	Description	Part No.
①	Volume Control	33-5001
②	Antenna Transformer	32-1000
③	Tuning Condenser Assembly	31-1000
④	Compensating Condenser (Part of Tuning Condenser Assembly)	
⑤	Filter Condenser Block (.05-.09-.25-.75-.2 Mfd.)	30-4000
⑥	Condenser (.0014 Mfd.)	7007
⑦	Resistor (8,000 ohms) Gray–Black–Red	5838
⑧	Oscillator Transformer	32-1001
⑨	Compensating Condenser (I.F. Primary)	04000-A
⑩	Compensating Cond. (Low Frequency)	04000-S
⑪	Condenser (10.0 Mfd.)	7440
⑫	Compensating Condenser (Part of Tuning Condenser Assembly)	
⑬	I.F. Transformer	32-1002
⑭	Compensating Cond. (I.F. Secondary)	04000-A
⑮	Resistor (10,000 ohms) Brown–Black–Orange	4412
⑯	Resistor (490,000 ohms) Yellow–White–Yellow	4517
⑰	Resistor (10,000 ohms) Brown–Black–Orange	4412
⑱	Compensating Condenser (Regeneration)	04000
⑲	Condenser (.00025 Mfd.)	3082
⑳	Condenser (.01 Mfd.)	3903-AM
㉑	Resistor (240,000 ohms) Red–Yellow–Yellow	4410
㉒	Resistor (490,000 ohms) Yellow–White–Yellow	4517
㉓	Resistor (51,000 ohms) Green–Brown–Orange	4518
㉔	Resistor (99,000 ohms) White–White–Orange	4411
㉕	Condenser (.015 Mfd.)	3793-S
㉖	Output Transformer	32-7000
㉗	Voice Coil and Cone Assembly	36-3000
㉘	A. C. Switch (Part of Volume Control Assembly)	33-5001
㉙	Resistors (2 Wire Wound–108 ohms each)	33-3000 33-3001
㉚	Electrolytic Condenser (8 Mfd.)	30-2000
㉛	Electrolytic Condenser (8 Mfd.)	30-2000
㉜	Condenser (.05 Mfd.)	3615-E
㉝	Filter Choke	32-7001
	Tube Shield	7172
	Knobs (Both Controls)	03064
	Four Prong Socket	7544

Model 54

(A. C.—D. C.)



No. on Figs.	Description	Part No.
①	Condenser	30-1005
①a	Resistor (Green-Black-Red)	6096
②	Condenser	5215
③	Antenna Transformer Assembly	32-1117
④	Tuning Condenser Assembly	31-1027
⑤	Compensating Condenser (Part of ④)	
⑥	Wave Band Switch	42-1027
⑥a	Condenser	30-4020
⑦	Filter Condenser (Block)	30-4023
⑧	Resistor (Flexible)	33-3010
⑨	Compensating Condenser (High Frequency 1400) Part of ④	
⑩	Oscillator Coil	32-1118
⑪	Resistor (Green-Brown-Orange)	4518
⑫	Compensating Condenser (Low Freq.)	04000-B
⑬	Condenser	4519
⑭	Resistor (Green-Black-Red)	5310
⑮	Electrolytic Condenser (Double)	30-2002
⑯	Resistor (White-White-Orange)	4411
⑰	Resistor (Gray-Black-Red)	5838
⑱	Compensating Cond. (1st I. F. Primary)	04000-A
⑲	1st I. F. Transformer	32-1115
⑳	Compensating Condenser (1st I. F. Secondary)	04000-A
㉑	Resistor (Red-Black-Green)	5872
㉒	Compensating Cond. (2nd I. F. Primary)	04000-A
㉓	2nd I. F. Transformer	32-1116
㉔	Condenser (Double)	8035-G
㉕	Volume Control and "On-Off" Switch	33-5010
㉖	Resistor (Green-Brown-Orange)	4518
㉗	Condenser	3903AM
㉘	Resistor (Yellow-White-Yellow)	6097
㉙	Resistor (Green-Brown-Orange)	4518
㉛	Condenser (Double)	8035-F
㉜	Resistor (Red-Yellow-Yellow)	4410
㉞	Resistor (Yellow-White-Yellow)	4517
㉟	Resistor (Red-Green-Orange)	4516
㊱	Condenser	3793-Y
㊲	Output Transformer	32-7020
㊳	Voice Coil and Cone Assembly	36-3029
㊴	Field Coil and Pot Assembly	36-3040
㊵	Filter Choke	32-7036
㊶	Electrolytic Condenser	30-2001
㊷	Resistor (Wire Wound)	33-3012
㊸	Resistor (Yellow-White-Yellow)	6097
㊹	Condenser	3615-B
㊺	Pilot Lamp	4567
㊻	Resistor (Wire Wound)	33-3011
㊼	Safety Switch	42-1026
	Tube Shield	28-1130
	Six Prong Socket	7547
	Seven Prong Socket	27-6005



I.F. 460 KC.

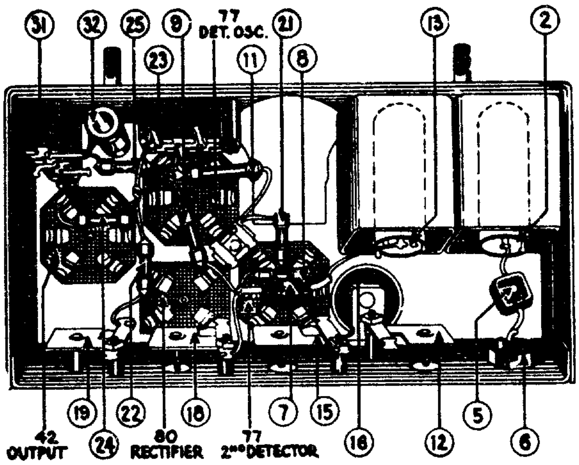
NOTE (A)—This capacity obtained by pair twisted wires

RESISTANCE VALUES (OHMS)	
①	20,000 VOL. CONT.
⑧	8,000
⑨	20,000
⑪	25,000
⑰	4000,000
㉑	1,000,000
㉒	10,000
㉔	240,000
㉕	490,000
㉜	325 (WIRE WOUND)

FIXED CONDENSER VALUES (MFD)	
⑤	.000325
⑦	.001
⑩	.09—.09
㉓	A—.001—B—.015
㉖	.006
㉛	.015—.015

PHILCO

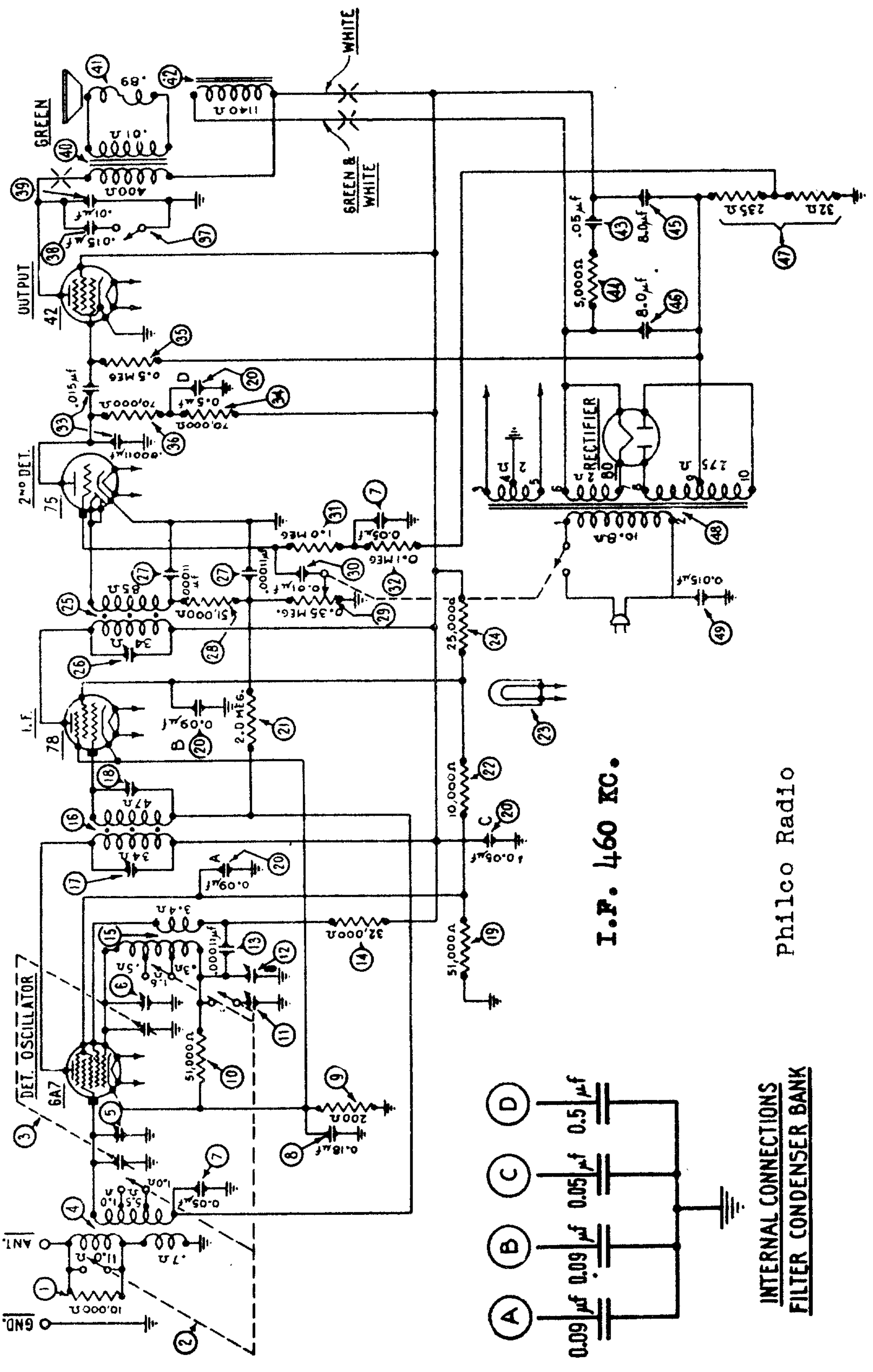
MODEL 57



No. on Figs.	Description	Part No.
①	Volume Control and "On-Off" Switch	33-5011
②	Antenna Transformer	32-1153
③	Tuning Condenser Assembly	31-1035
④	Compensating Condenser (Antenna; Part of ③)	
⑤	Condenser	30-1004
⑥	Wave Band Switch	42-1027
⑦	Condenser	5215
⑧	Resistor (Gray-Black-Red)	5838
⑨	Resistor (Red-Black-Orange)	6650
⑩	Condenser (Double)	4989-C
⑪	Resistor (Red-Green-Orange)	3656
⑫	Compensating Condenser (I. F. Primary)	04000-A
⑬	Oscillator Coil	32-1023
⑭	Compensating Cond. (High Frequency—1400 kilocycles) (Part of ③)	
⑮	Compensating Cond. (Low Frequency)	04000-S
⑯	I. F. Transformer	32-1155
⑰	Resistor (Yellow-Black-Green)	6010

No. on Figs.	Description	Part No.
⑱	Compensating Cond. (I. F. Secondary)	04000-D
⑲	Compensating Condenser	04000
㉑	Resistor (Brown-Black-Green)	4409
㉒	Resistor (Brown-Black-Orange)	4412
㉓	Condenser (Double)	7762-B
㉔	Resistor (Red-Yellow-Yellow)	4410
㉕	Resistor (Yellow-White-Yellow)	3769
㉖	Condenser	7625-E
㉗	Output Transformer	32-7041
㉘	Voice Coil and Cone Assembly	36-3029
㉙	Field Coil and Pot Assembly	36-3081
㉚	Electrolytic Condenser (Double)	30-2004
㉛	Condenser (Double)	3793-R
㉜	Resistor (Wire Wound)	7465
㉝	Power Transformer	32-7046
	Tube Shield	28-1107
	Four Prong Socket	7544
	Six Prong Socket	7547

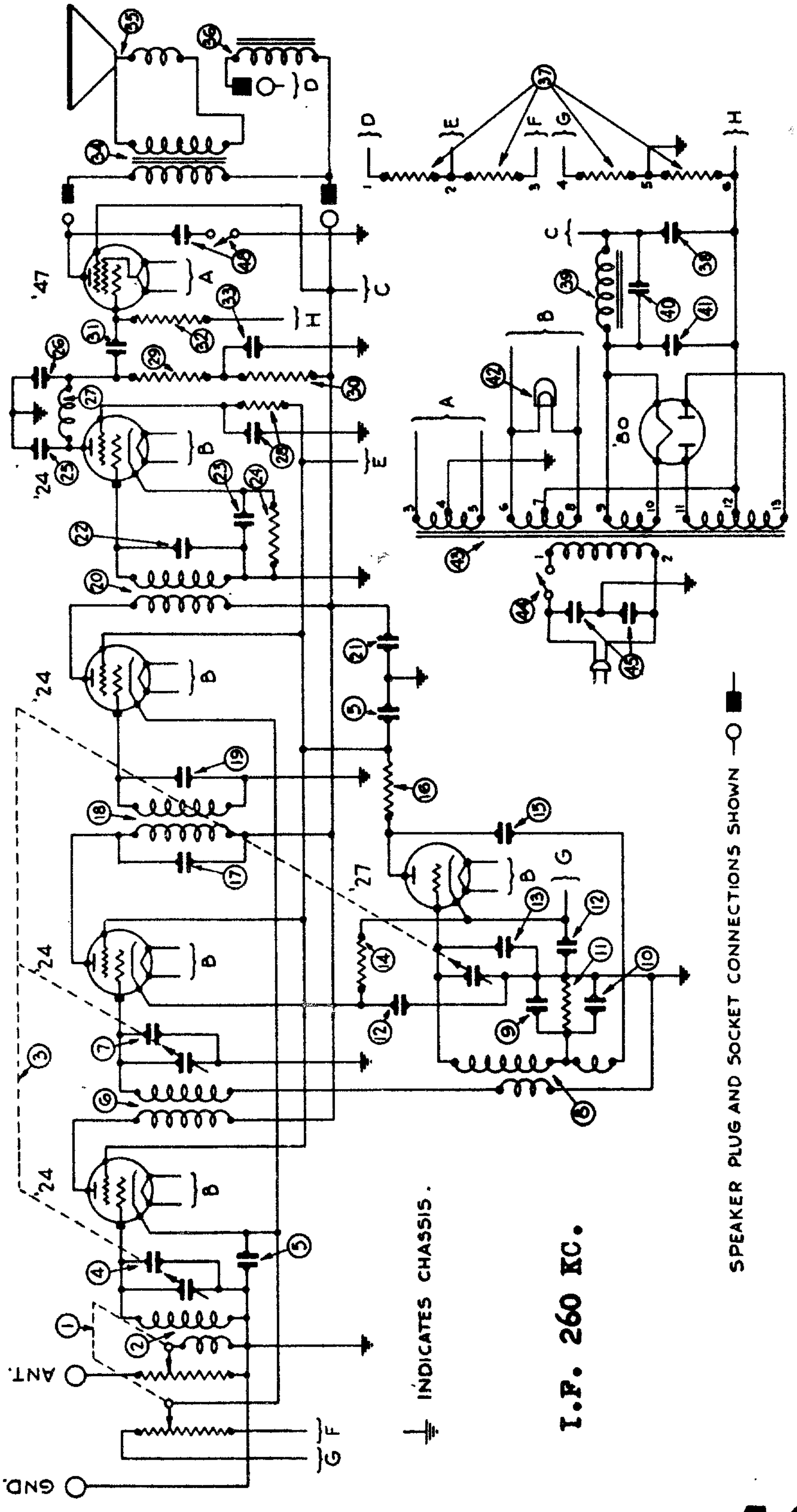
Model 60



I.F. 460 KC.

Philco Radio

MODELS 70 AND 70-A



INDICATES CHASSIS.

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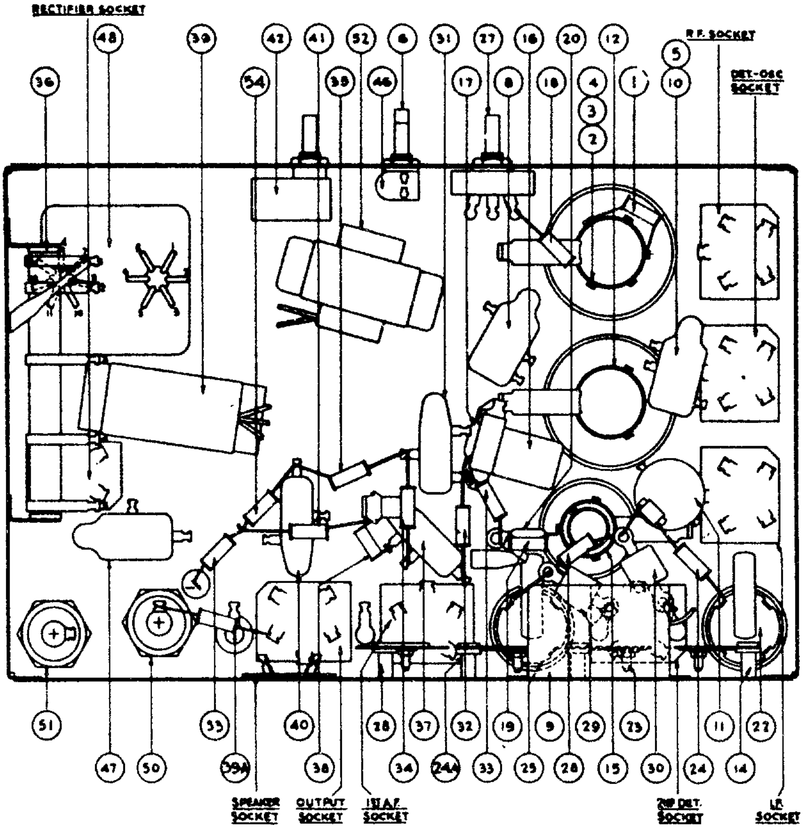
SPEAKER PLUG AND SOCKET CONNECTIONS SHOWN —○ ■—

Philco Radio



REPLACEMENT PARTS MODELS 70 AND 70-A

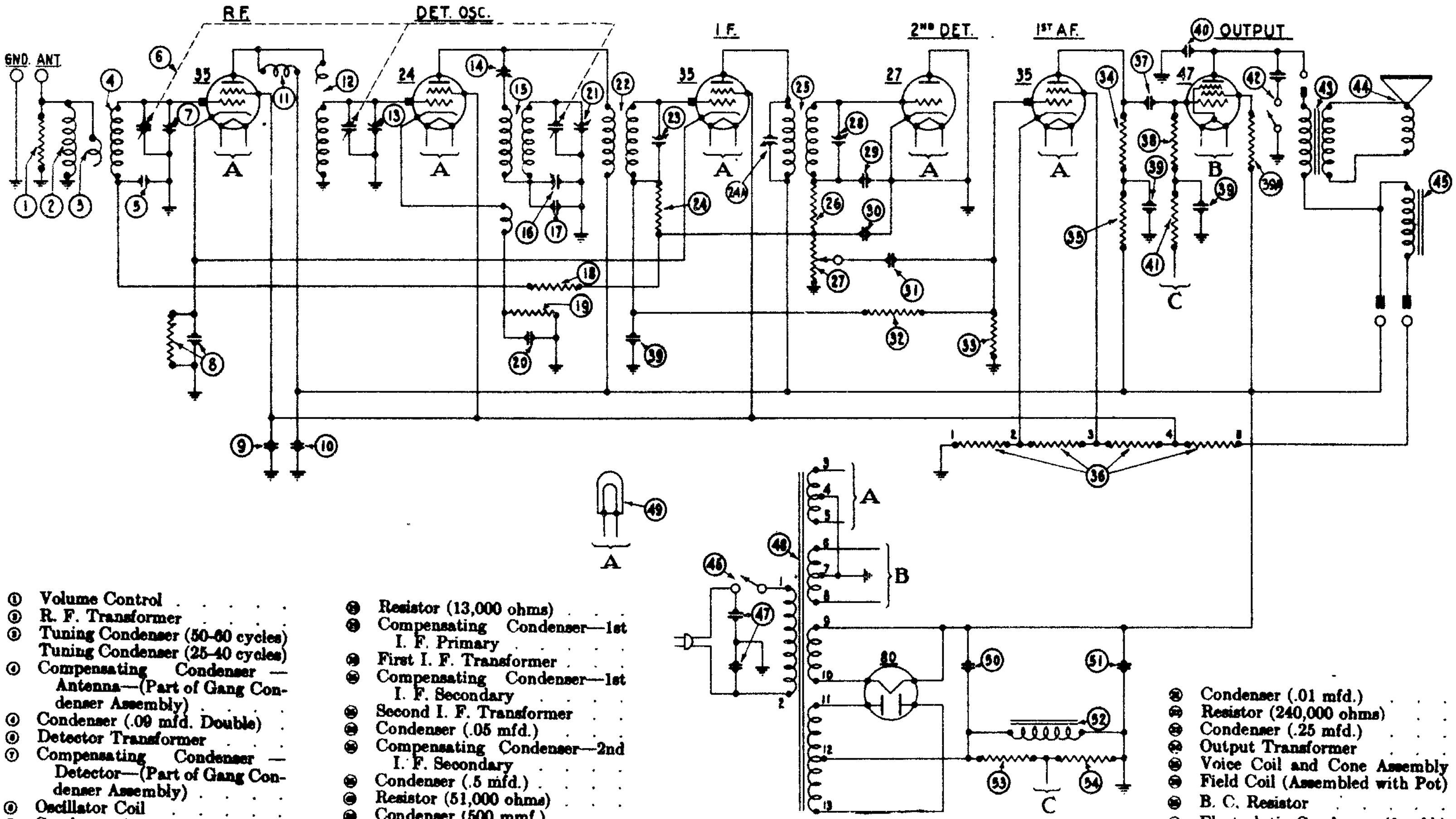
(Above Serial No. B-22,000)

No. on Figs. 3 and 4	Description	Part No.
①	Resistor (10,000 ohms)	4112
② ③ ④	Antenna Coil	04339
⑤	Condenser (.05 mfd.) double	3615-AF
⑥	Tuning Condenser Assembly 50-60 cycles	04164
	Tuning Condenser Assembly 25-40 cycles	04165
⑦	Compensating Condenser — Antenna — (Part of Tuning Condenser Assembly)	
⑧	Condenser (.09 mfd. and 200 ohm Resistor)	4969-L
⑨	Condenser (.5 mfd.)	3583
⑩	Combined with ⑤	
⑪	R. F. Choke	04196
⑫	Interstage Coil	04185
⑬	Compensating Condenser — Detector — (Part of Tuning Condenser Assembly)	
⑭	Compensating Condenser—Coupling	04000-M
⑮	Oscillator Coil	04186
⑯	Compensating Condenser — Low Frequency	04000-F
⑰	Condenser (410 mmf.)	5120
⑱	Resistor (2,000,000 ohms)	5872
⑲	Resistor (10,000 ohms)	4412
⑳	Condenser (700 mmf.)	4520
㉑	Compensating Condenser - High Frequency—(part of Tuning Condenser Assembly)	
㉒	First I. F. Transformer	04190
㉓	Compensating Condenser—First I. F.	04000-M
㉔	Resistor (2,000,000 ohms)	5872
㉔A	Compensating Condenser 2nd I.F. Primary	04000-M
㉕	Second I. F. Transformer	03038
㉖	Resistor (99,000 ohms)	4411
㉗	Volume Control	6015
㉘	Compensating Condenser—Second I. F.	04000-M
㉙	Condenser (110 mmf.)	4519
㉚	Condenser (110 mmf.)	4519
㉛	Condenser (.01 mfd)	3903-G
㉜	Resistor (4,000,000 ohms)	6010
㉝	Resistor (1,000,000 ohms)	4409
㉞	Resistor (70,000 ohms)	5385
㉟	Resistor (25,000 ohms)	4516

No. on Figs. 3 and 4	Description	Part No.
㊱	B. C. Resistor	04196
㊲	Condenser (.01 mfd.)	3903-T
㊳	Resistor (490,000 ohms)	4517
㊴	Filter Condenser Block (.05, .25, 1.5 mfd.)	04194
㊴A	Resistor (3,000 ohms)	5309
㊵	Condenser (.01 mfd.)	3903-U
㊶	Resistor (330,000 ohms) 50-60 cybles	6046
	Resistor (490,003 ohms) 25-40 cycles	4517
㊷	Tone Control	03637
㊸	Output Transformer	2673
㊹	Voice Coil & Cone Assembly	02996
㊺	Field Coil Assembled with Pot	02966
㊻	On-Off Switch	4095
㊼	Condenser (.015 mfd. Double)	3793-H
㊽	Power Transformer (50-60 cycles)	5117
	Power Transformer (25-40 cycles)	5118
	Power Transformer (50-60 cycles, 230 volts)	5119
㊾	Pilot Light	3463
㊿	Electrolytic Condenser (6 mfd.) 50-60 cycles	4916
	Electrolytic Condenser (14 mfd.) 25-40 cycles	5725
(51)	Electrolytic Condenser (6 mfd.) 50-60 cycles	4916
	Electrolytic Condenser (10 mfd.) 25-40 cycles	5142
(52)	Filter Choke	4819
(53)	Resistor (51,000 ohms)	4518
(54)	Resistor (490,000 ohms)	4517
	Tube Shield	04168
	Knob (Large)	03064
	Knob (Small)	03437
	Knob Spring	4147
	Grid Clip	4897
	Five Prong Socket Assembly	4956
	Four Prong Socket Assembly	4955
	Dial Complete	03031
	Bezel	5312
	Chassis Mounting Screw	W-468
	Mounting Washer	W-315
	Rubber Washer	5189

MODELS 70 AND 70-A

(A. V. C.)



① Volume Control
② R. F. Transformer
③ Tuning Condenser (50-60 cycles)
Tuning Condenser (25-40 cycles)
④ Compensating Condenser — Antenna—(Part of Gang Condenser Assembly)
⑤ Condenser (.09 mfd. Double)
⑥ Detector Transformer
⑦ Compensating Condenser — Detector—(Part of Gang Condenser Assembly)
⑧ Oscillator Coil
⑨ Condenser (410 mmf.)
[illegible] Compensating Condenser—Low Frequency
[illegible] Resistor (51,000 ohms)
[illegible] Condenser (.09 mfd. Double)
[illegible] Compensating Condenser—High Frequency — (Part of Gang Condenser Assembly)
[illegible] Resistor (5,000 ohms)
[illegible] Condenser (110 mmf.)

[illegible] Resistor (13,000 ohms)
[illegible] Compensating Condenser—1st I. F. Primary
[illegible] First I. F. Transformer
[illegible] Compensating Condenser—1st I. F. Secondary
[illegible] Second I. F. Transformer
[illegible] Condenser (.05 mfd.)
[illegible] Compensating Condenser—2nd I. F. Secondary
[illegible] Condenser (.5 mfd.)
[illegible] Resistor (51,000 ohms)
[illegible] Condenser (500 mmf.)
[illegible] Condenser (250 mmf.)
[illegible] R. F. Choke
[illegible] Condenser (.09 Combined with 250 ohm Resistor)
[illegible] Resistor (240,000 ohms)
[illegible] Resistor (45,000 ohms) 50-60 cycles
Resistor (99,000 ohms) 25-40 cycles

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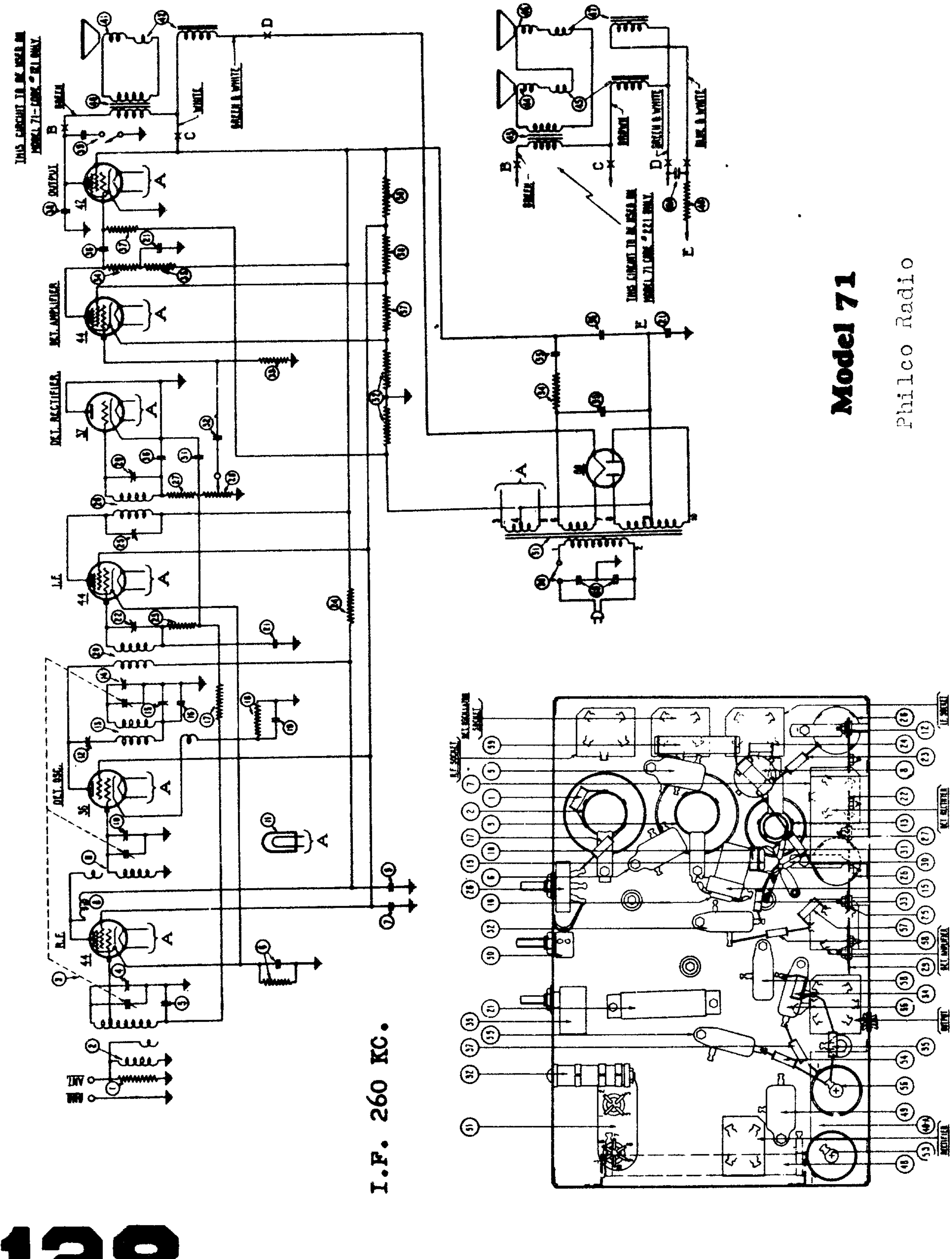
[illegible] Condenser (.01 mfd.)
[illegible] Resistor (240,000 ohms)
[illegible] Condenser (.25 mfd.)
[illegible] Output Transformer
[illegible] Voice Coil and Cone Assembly
[illegible] Field Coil (Assembled with Pot)
[illegible] B. C. Resistor
[illegible] Electrolytic Condenser (6 mfd.) 50-60 cycles
[illegible] Choke
[illegible] Condenser (.09 mfd.) 50-60 cycles
[illegible] Electrolytic Condenser (6 mfd.) 50-60 cycles
[illegible] Pilot Light
[illegible] Power Transformer (50-60 cycles)
[illegible] "On-Off" Switch
[illegible] Condenser (.015 mfd. Double)



I.F. 260 KC.

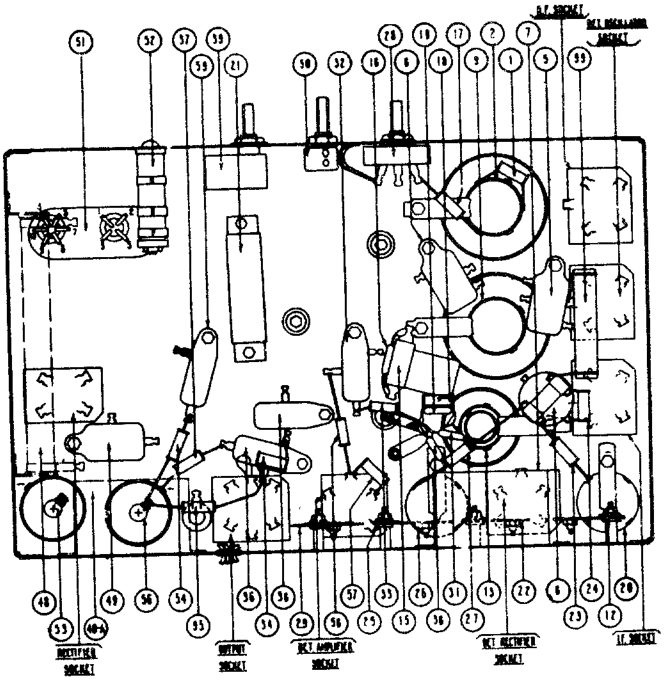
Model 71

Philco Radio

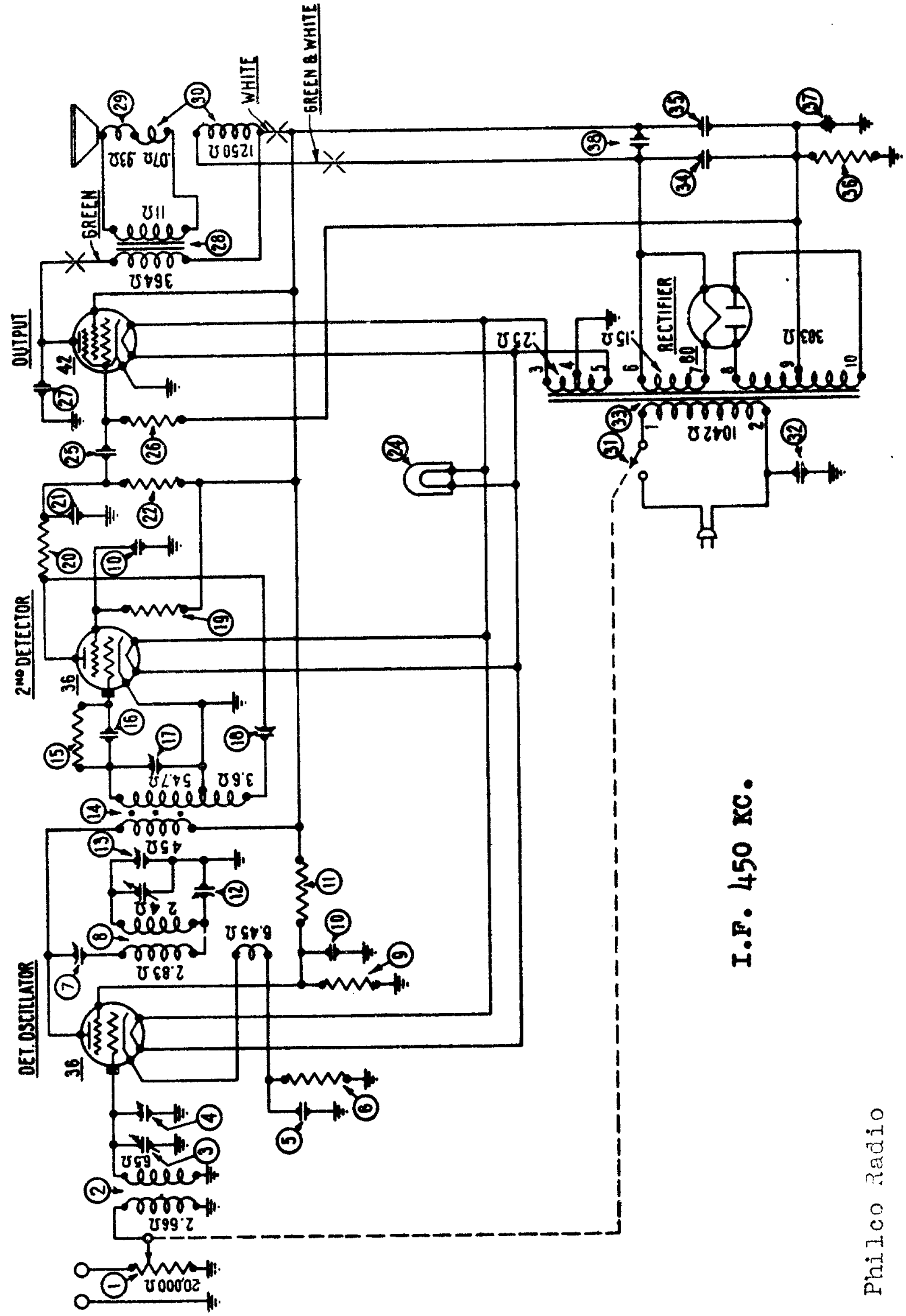
Replacement Parts for Model 71 Series

①	Resistor (10,000 ohms)	4412
②	R. F. Transformer	04339
③	Tuning Condenser (50-60 cycles)	04733
④	Tuning Condenser (25-40 cycles)	04734
⑤	Condenser (.05 Mfd. double)	3615-AF
⑥	Condenser (.09 Mfd. and 200 ohm resistor)	4989-L
⑦	Condenser (.5 Mfd.)	3583
⑧	R. F. Choke	04198
⑨	Detector Transformer	04185
⑩	Compensating Condenser—Detector—Part of tuning condenser assembly	
⑪	Pilot Light	6608
⑫	Compensating Condenser — 1st I. F. primary	04000-M
⑬	Oscillator Coil	04186
⑭	Compensating Condenser—High frequency—Part of tuning condenser assembly	
⑮	Compensating condenser—Low frequency	04000-F
⑯	Condenser (410 Mmf.) (Yellow and Orange)	5120
⑰	Resistor (1,000,000 ohms)	4409
⑱	Resistor (15,000 ohms)	6208
⑲	Condenser (700 Mmf.) (White and Yellow)	4520
⑳	First I. F. Transformer	04190
㉑	Filter Condenser Bank (2 —.05, .25 Mfd.)	04731
㉒	Compensating Condenser — 1st I. F. secondary	04000-M
㉓	Resistor (1,000,000 ohms)	4409
㉔	Resistor (1,000 ohms)	5837
㉕	Compensating Condenser—2nd I. F. primary	04000-M
㉖	Second I. F. Transformer	04319
㉗	Resistor (99,000 ohms)	4411
㉘	Volume Control	6499
㉙	Compensating Condenser—2nd I. F. secondary	04000-M
㉚	Condenser (110 Mmf.) (Blue and Golden Yellow)	4519
㉛	Condenser (110 Mmf.) (Blue and Golden Yellow)	4519
㉜	Condenser (.01 Mfd.)	3903-J
㉝	Resistor (1,000,000 ohms)	4409
㉞	Resistor (70,000 ohms)	5385
㉟	Resistor (25,000 ohms) Single Speaker Resistor (51,000 ohms) Twin Speaker Models	4516 4518
㊱	Condenser (.01 Mfd.)	3903-N
㊲	Resistor (490,000 ohms)	4517
㊳	Condenser (.01 Mfd.)	3903-AA
㊴	Tone Control	04757
㊵	Output Transformer — single speaker models	2580
㊶	Voice Coil and Cone assembly	02823
㊷	Speaker Field and Bucking Coil assembled with pot—(K-7) single speaker models	02761
㊸	Output Transformer — Twin speaker models	2564
㊹	Voice Coil and cone assembly	02823
㊺	Speaker Field and Bucking Coil assembled with pot—(K-10) Twin speaker models	02767
㊻	Voice coil and cone assembly	02823
㊼	Speaker field assembled with pot —(K-9) Twin speaker models	02762
㊽	Resistor (5620 ohms) wire wound —Twin speaker models	6451
㊽A	Condenser (.25 Mfd.) Twin Speaker Models	04997
㊾	Condenser (.015 Mfd. Double)	3793-H
㊿	On-off Switch	6498
(51)	Power Transformer—50-60 cycles—single speaker Power Transformer—25-40 cycles—single speaker Power Transformer—50-60 cycles—230 volts—single speaker Power Transformer—50-60 cycles—twin speaker Power Transformer—25-40 cycles—twin speaker Power Transformer—50-60 cycles—230 volts—twin speaker	6454 6455 6456 6457 6458 6459
(52)	Resistor—wire wound (245 ohms and 185 ohms)	6452
(53)	Electrolytic Condenser (6 Mfd.) (50-60 cycles) single speaker 8 Mfd. Twin speaker	6453 6707
(54)	Resistor (10,000 ohms)	4412
(55)	Condenser (.05 Mfd.)	3615-G
(56)	Electrolytic Condenser (6 Mfd.) (50-60 cycles) single speaker 8 Mfd. Twin speaker	4916 6706
(57)	Resistor (5,000 ohms)	5310
(58)	Resistor (5,000 ohms)	5310
(59)	Resistor (13,000 ohms)	6450
	Tube Shield (small)	5387
	Tube Shield (large)	04735

Philco Radio

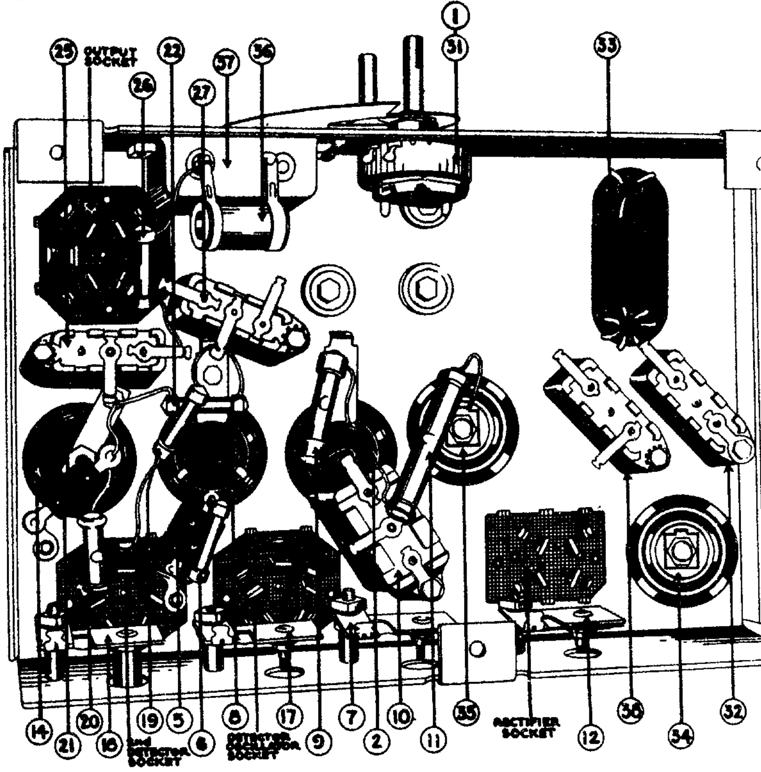


Model 80



I.F. 450 KC.

Philco Radio



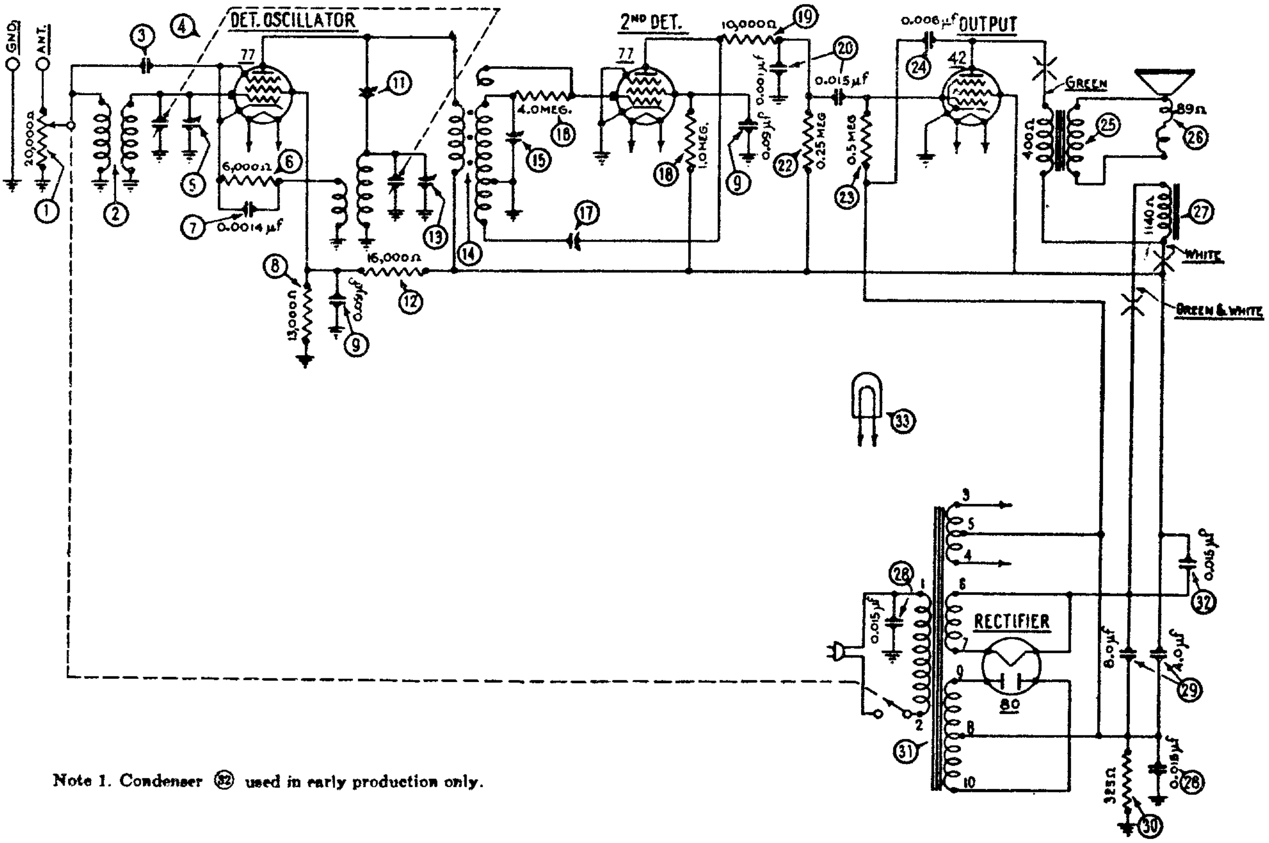
REPLACEMENT PARTS MODEL 80

No. on Figs. 2 and 3	Description	Part No.
①	Volume Control—Combined with On-Off Switch	7439
②	Antenna Transformer	05831
③	Tuning Condenser Assembly	05794
④	Compensating Condenser — Antenna — Part of Tuning Con. Assembly	
⑤	Condenser (710 Mmf.) White and Yellow	4520
⑥	Resistor (10,000 Ohms)	4412
⑦	Compensating Condenser—I.F. Primary	04000-A
⑧	Oscillator Coil	05832
⑨	Resistor (9,000 Ohms)	7501
⑩	Condenser (.09 Twin)	4989-B
⑪	Resistor (16,000 Ohms)	7500
⑫	Compensating Condenser — Low Frequency:	04000-S
⑬	Compensating Condenser — High Frequency — Part of Tuning Con. Assembly	
⑭	I.F. Transformer	05834
⑮	Resistor (4,000,000 Ohms) Mounted on I.F. Transformer	6010
⑯	Condenser (50 Mmf.) White—Mounted on I.F. Transformer	3774
⑰	Compensating Condenser—I.F. Secondary	04000-D
⑱	Compensating Condenser	04000
⑲	Resistor (1,000,000 Ohms)	4409*
⑳	Resistor (10,000 Ohms)	4412
㉑	Condenser (1,000 Mmf.) Green and White	5215
㉒	Resistor (240,000 Ohms)	4410
㉔	Pilot Light	6608
㉕	Condenser (.015 Mfd.)	3793-B
㉖	Resistor (490,000 Ohms)	4517*
㉗	Condenser (.006 Mfd.)	7625-B*
㉘	Output Transformer	2660
㉙	Voice Coil and Cone Assembly	02861
㉚	Speaker Field and Bucking Coil Assembled with Pot	02677*
㉛	On-Off Switch—Combined with Volume Control	7439
㉜	Condenser (.01 Mfd.)	3903-AH*
㉝	Power Transformer 50-60 Cycles	7421
	Power Transformer 25-40 Cycles	7422
	Power Transformer 50-60 Cycles, 230 Volts	7423
㉞	Electrolytic Condenser (8.0 Mfd.)	6707
㉟	Electrolytic Condenser (4.0 Mfd.)	7467
㊱	Resistor (325 Ohms) Wire Wound	7465*
㊲	Electrolytic Condenser—Dry—(10 Mfd.)	7440*
㊳	Condenser (.01 Mfd.)	3903-AJ*
	Bezel	7417
	Dial Complete	05828
	Tube Shield	7172
	Knob (Large)	03063
	Knob (Small)	03064
	Knob Spring	5262
	Grid Clip	4897
	Four Prong Socket Assembly	5026
	Five Prong Socket Assembly	4956
	Six Prong Socket Assembly	6417
	Chassis Mounting Screw	W-567
	Chassis Mounting Washer	W-315
	Rubber Washer	5189
	Pilot Lamp Shield	5760

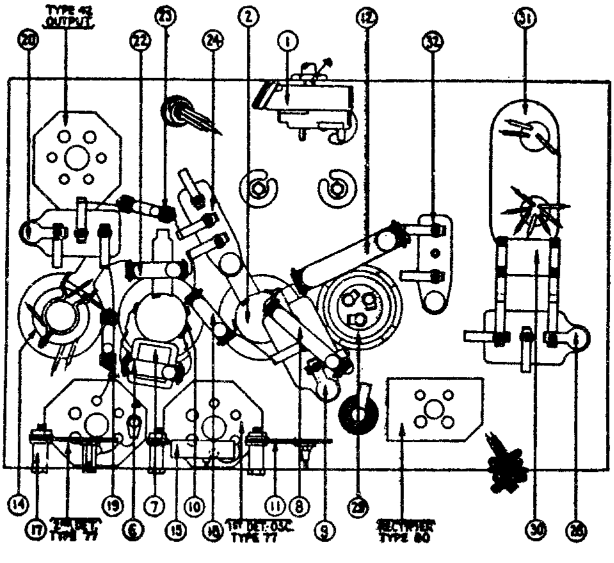
* A number of circuit changes were made on chassis of run No. 5 and above. This run number is rubber stamped in a star on the back of the chassis. Refering to Figs 2 and 3, the condenser ㉗ connects to the B- end of resistor ㊱ instead of to ground. The bucking coil - that section of ㉚ in series with the voice coil - is shorted out. The 10 mfd. dry electrolytic condenser ㊲ is eliminated, and replaced with a substitute .015 section combined with ㉕, part 3793R. The .01 mfd. condenser ㊳ is eliminated. The positions of ⑲ ㉖ and ㉚ are changed in the chassis from that shown in Fig. 3.

MODEL 84

Philco Radio

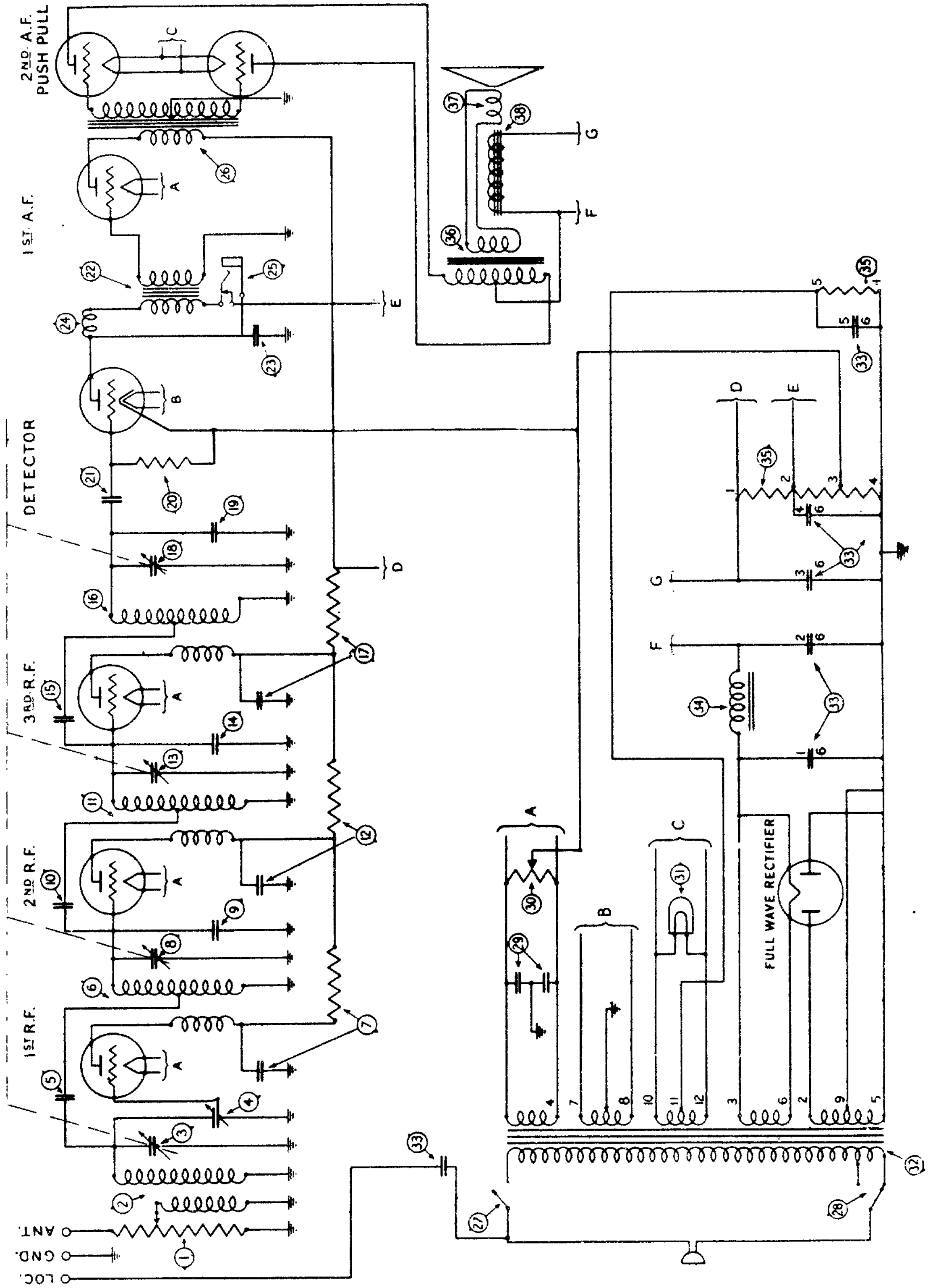


Note 1. Condenser ㉜ used in early production only.



I. F. 460 K. C.

Model 86 and 82



Replacement Parts for Model 86

	Part Name	Part No.
①	Volume Control	3076
②	R. F. Transformer (Antenna Tuning)	3075-B
③ - ⑧ - ⑬ - ⑱	Tuning Condenser (complete with drum and scale)	3001-B
④	Range Control	3133
⑤ - ⑩ - ⑮	Neutralizing Condenser	3025-A
⑥ - ⑪ - ⑯	R. F. Transformer	3075-A
⑦ - ⑫ - ⑰	By-Pass Condenser (.1 mfd. with Plate Resistor Winding)	3292-A
⑨ - ⑭ - ⑲	Compensating Condensers	3282-A
⑳	Grid Leak	3083
㉑	Grid Condenser	3082
㉒	Audio Transformer	3241
㉓	By-Pass Condenser (.001 mfd.)	3081
㉔	Detector R. F. Choke	3256-A
㉕	Phonograph Pick-Up Jack	3087
㉖	Push-Pull Input Transformer	3242
㉗	Power-Toggle Switch	3253
㉘	Primary Tap Switch	3116
㉙	Filament By-Pass Condenser (2 sections .5 mfd.)	3080
㉚	6-Ohm Hum Adjuster	3096
㉛	Pilot Lamp	3105
㉜	Power Transformer (60 cycle)	3271
㉝	Filter Condenser Block (60 cycle)	3246
㉞	Filter Choke Coil	3269
㉟	B-C Section Resistor	3232
㊱	Push-Pull Output Transformer	2897
	Speaker Plug	2871-A
㊲	Speaker Cone and Voice Coil	2898
㊳	Speaker Field Coil	2896
	Cable Spring	3012
	Control Knob Tuning Condenser	3035-A
	Control Knob (Volume and Range Control)	3036-A
	226 Tube Socket	3051-A
	Condenser Drive Cable	3054-A
	Knob Spring	3103
	Fibre Adjusting Wrench	3164
	280 Tube Socket	3169-A
	171 Tube Socket	3170-A
	Pilot Lamp Socket Assembly	3202-A
	Jack Insulator Nut	3231
	Terminal Panel Assembly	3236-A
	Speaker Socket	3247-A
	227 Tube Socket, Spring Type	3263-A
	Jack Insulator	3272
	A.C. Attachment Cord and Plug	L-943-A
	Wiring Cable	L-1037
	Speaker Cable	L-1039
	Socket Wrench for Speaker Mounting Bolts	3312

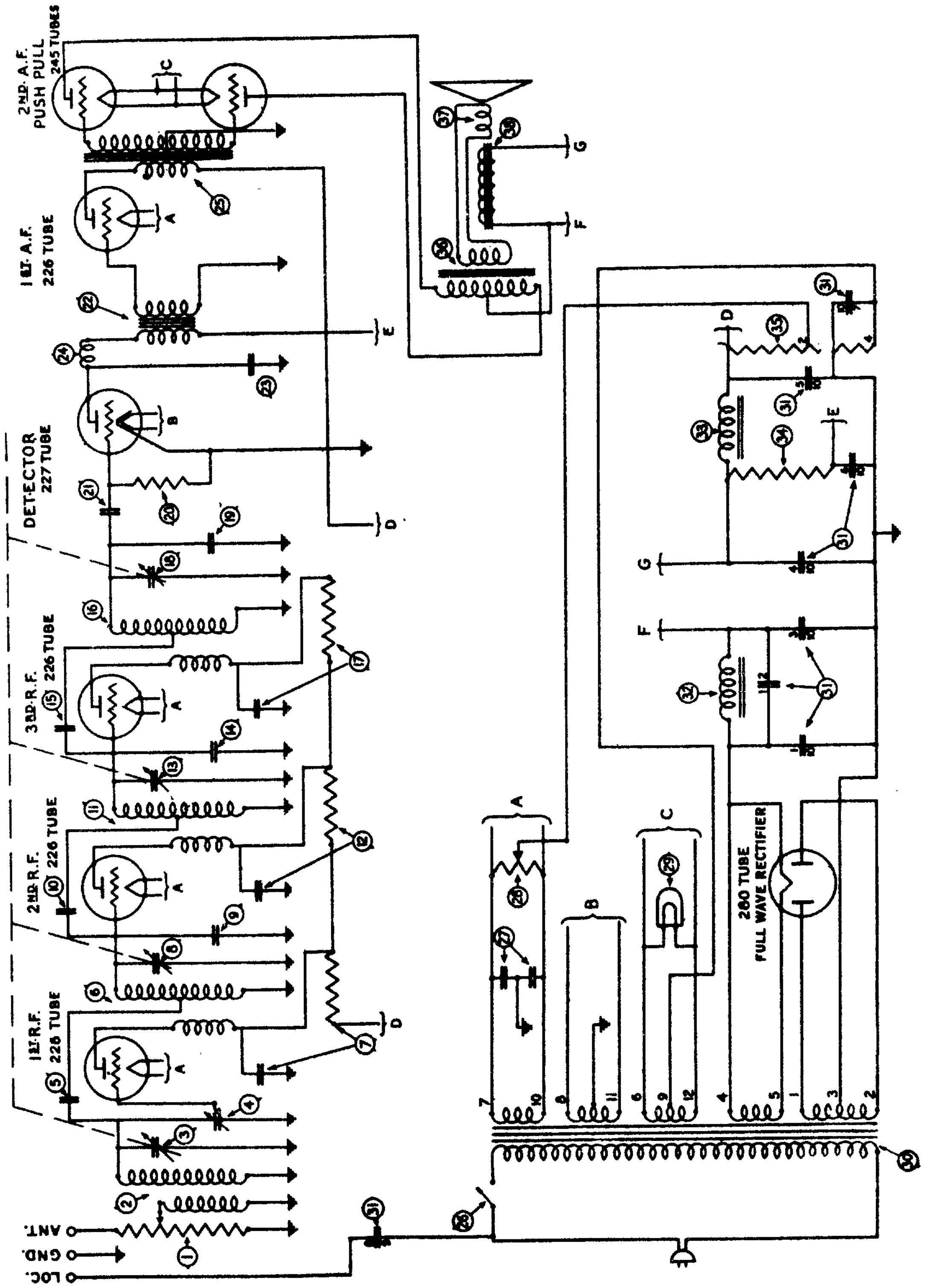
Note:—**When ordering replacements for 25-cycle Receivers (Model 82) use the following part numbers instead of those given above. All other part numbers remain the same.**

	Part Name	Part No.
㉜	Power Transformer (25 cycle)	3278
㉝	Filter Condenser Block (25 cycle)	3279

Replacement Parts for Model 87

	Part Name	Part No.
①	**Volume Control**	**3076**
②	**R. F. Transformer (Antenna Tuning)**	**3075-B**
③ - ⑧ - ⑬ - ⑱	**Tuning Condenser (Complete with Drum and Scale)**	**3001-B**
④	**Range Control**	**3133**
⑤ - ⑩ - ⑮	**Neutralizing Condenser**	**3441-A**
⑥ - ⑪ - ⑯	**R. F. Transformer**	**3075-A**
⑦ - ⑫ - ⑰	**By-Pass Condenser (.1 mfd. with Plate Resistor Winding)**	**3292-A**
⑨ - ⑭ - ⑲	**Compensating Condensers**	**3435-A**
⑳	**Grid Leak**	**3083**
㉑	**Grid Condenser**	**3082**
㉒	**Audio Transformer**	**3241**
㉓	**By-Pass Condenser (.001 mfd.)**	**3081**
㉔	**Detector R. F. Choke**	**3256-A**
㉕	**Push-Pull Input Transformer**	**3242**
㉖	**Power Toggle Switch**	**3501**
㉗	**Filament By-Pass Condenser (2 Sections 5 mfd.)**	**3080**
㉘	**6-Ohm Hum Adjustor**	**3096**
㉙	**Pilot Lamp**	**3463**
㉚	**Power Transformer**	**3400**
㉛	**Filter Condenser Block**	**3401**
㉜	**Filter Choke Coil (First)**	**3422**
㉝	**Filter Choke Coil (Second)**	**3472**
㉞	**Detector Resistor**	**3542**
㉟	**B-C Resistor**	**3399**
㊱	**Push-Pull Output Transformer**	**2848**
㊲	**Speaker Cone and Voice Coil**	**2844-A**
㊳	**Speaker Field Coil**	**2850**
	Speaker Plug	**2871-A**
	Cable Spring	**3012**
	Control Knob Tuning Condenser	**3301**
	Control Knob (Volume and Range Control)	**3300**
	Condenser Drive Cable	**3484**
	Knob Spring	**3305**
	Fibre Adjusting Wrench	**3164**
	4-Hole Tube Socket	**3423-A**
	Pilot Lamp Socket Assembly	**3202-A**
	Terminal Panel Assembly	**3236-A**
	Speaker Socket	**3464-A**
	5-Hole Tube Socket	**3442-A**
	A.C. Attachment Cord and Plug	**L-943-A**
	Speaker Cable	**L-1056-A**
	Socket Wrench for Speaker Mounting Bolts	**3312**
	Tuning Scale	**3298**
	Oscillator Kit	**3540**
	Wood Switch Plug	**3627**

Model 87


2ND A.F. PUSH PULL 245 TUBES
1ST A.F. 226 TUBE
DETECTOR 227 TUBE
3RD R.F. 226 TUBE
2ND R.F. 226 TUBE
1ST R.F. 226 TUBE
280 TUBE FULL WAVE RECTIFIER
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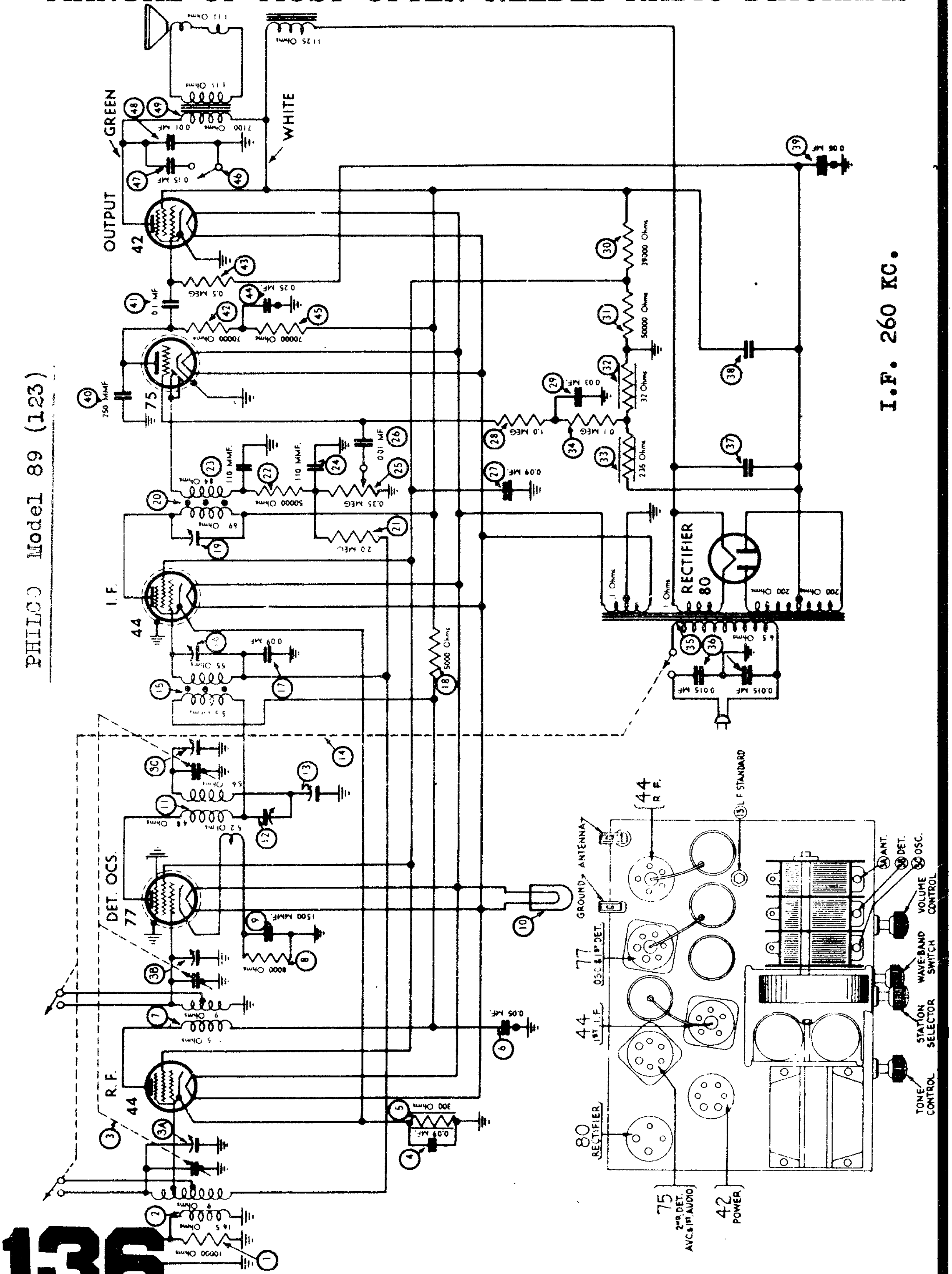
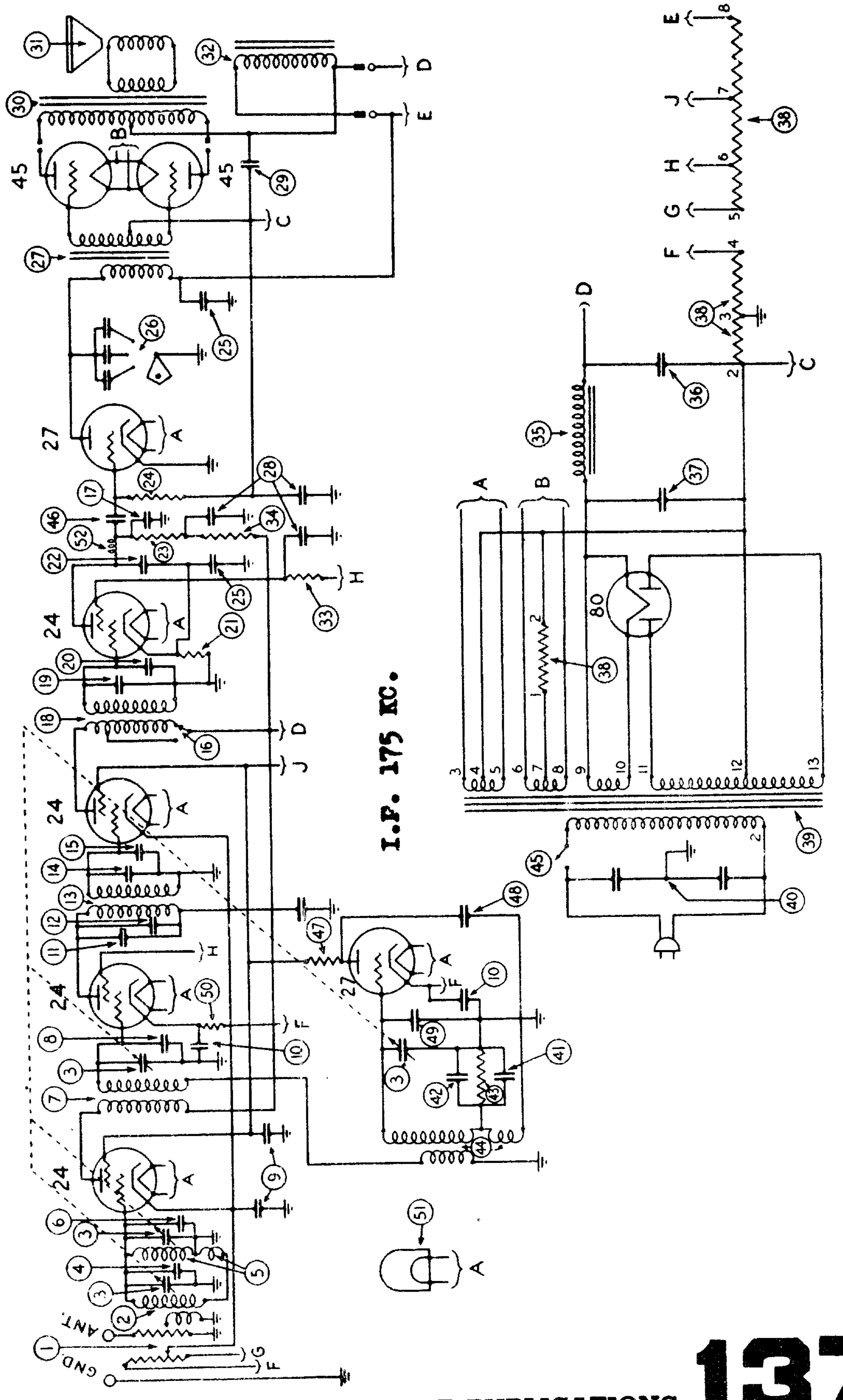
PHILCO Model 89 (123)

I.F. 260 KC.



Models 90 and 90-A

WITH 2- TYPE 45 TUBES



I.F. 175 KC.

Models 90 and 90-A

WITH 2- TYPE 45 TUBES

No. on Figs. 3 and 4	Description	Part No.
①	Volume Control	5039
②	1st R. F. Transformer	03013
③	Gang Condenser—50 to 60 cycles	03001
	Gang Condenser—25 to 40 cycles	03078
④	Compensating Condenser (Part of Tuning Condenser Assembly)	
⑤	2nd R. F. Transformer	03014
⑥	Compensating Condenser (Part of Tuning Condenser Assembly)	
⑦	1st Det. Transformer	03015
⑧	Compensating Condenser (Part of Tuning Condenser Assembly)	
⑨	Condenser .09 M. F. (Double)	4989-C
⑩	Condenser .09 M. F. (Double)	4989-B
⑪	Fixed Condenser .00011 } Assembled	3772-C
⑫	Compensating Condenser } Assembled	
⑬	1st I. F. Transformer	03009
⑭	Compensating Condenser } Assembled	03051
⑮	Fixed Condenser .00011 } Assembled	
⑯	Normal Maximum Switch	3116
⑰	Condenser (.000035 mf)	4990
⑱	2nd I. F. Transformer	03143
⑲	Compensating Condenser } Assembled	03051
⑳	Fixed Condenser .00011 } Assembled	
㉑	Resistor—50,000 Ohms	4518
㉒	Condenser .00035	4990
㉓	Resistor—250,000 Ohms	4410
㉔	Resistor—1,000,000 Ohms	4409
㉕	Condenser .5 M. F. (Double)	03024
㉖	Tone Control	4037-A
㉗	1st Audio Transformer	4952
㉘	Condensers 2—.25 M. F. and 1—.5 M. F.	03029
㉙	Condenser .05 M. F.	3615-G
㉚	Output Transformer:	
	H_1 (For Large Cone Assembly)	2848
	K_1 (For Small Cone Assembly)	2766
㉛	Voice Coil Assembly and Cone:	
	H_2 (Large Cone)	02997
	K_2 (Small Cone)	02996
㉜	Speaker Field—Assembled with Pot and Frame	
㉝	Resistor—250,000 Ohms	3766
㉞	Resistor—250,000 Ohms	4410
㉟	Filter Choke	4951
㊱	Condenser 6 M. F. Electrolytic Type (50-60 cycles)	4916
	Condenser 10 M. F. Electrolytic Type (25-40 cycles)	5142
㊲	Condenser 6 M. F. Electrolytic Type (25-40) and (50-60) cycles	4916
㊳	B. C. Resistor	4953
㊴	Power Transformer (50 to 60 cycles)	4938
	Power Transformer (25 to 40 cycles)	4956
㊵	Condenser .015 M. F. (Double)	3793-E
㊶	Condenser .0007 M. F. } Assembled	03050
㊷	Compensating Condenser } Assembled	
㊸	Resistor—50,000 Ohms	4237
㊹	Oscillator Coil	03016
㊺	On-Off Switch	4095
㊻	Condenser .001 M. F.	5215
㊼	Resistor—13,000 Ohms	3766
㊽	Condenser .00011 M. F.	4519
㊾	Compensating Condenser (Part of Tuning Condenser Assembly)	
㊿	Resistor—5,000 Ohms	3626
(51)	Pilot Bulb	3463
(52)	R. F. Choke	03086
	Line Cord and Plug	L-943
	Tube Shield	03002
	Knob (large) Dial Control	4958-A
	Spring (Dial Knobs)	4147
	Knobs (small) Tone and Volume Control	4959-A
	Knob (switch)	4290-A
	Grid Clip	4897
	Speaker Plug and Cable	L-1134-A
	Grommet for R. F. Transformer Shield	3747
	Rectifier Tube Socket	5026
	Four Prong Socket Assembly	4955
	Five Prong Socket Assembly	4956
	Speaker Socket	4967
	Volume Control Insulator	4092
	Volume Control Insulator	4286
	Fahnstock Clip	L-1126
	Finishing Rosettes	4267
	Speaker Mounting Screws (8 used)	W-493
	Speaker Mounting Screws (1 used)	W-483
	Dial	5021
	Mica for Gang Condenser Compensating Condenser	3473
	Insulating Washer for Compensating Condenser	3500
	Tuning Condenser Mounting Washer	3614
	Tuning Condenser Mounting Washer	3915
	Tuning Condenser Mounting Sleeve	3916
	Spring for Tuning Condenser	4255
	Bezel	5009
	Complete Pilot Bracket	03081-A
	Dial Disc	4926
	Light Shield Screen	4937
	Friction Drive Bracket	4966
	Brass Collar for Friction Drive	4966
	Shaft	4961

REPLACEMENT PARTS—MODELS 90 and 90-A RECEIVERS

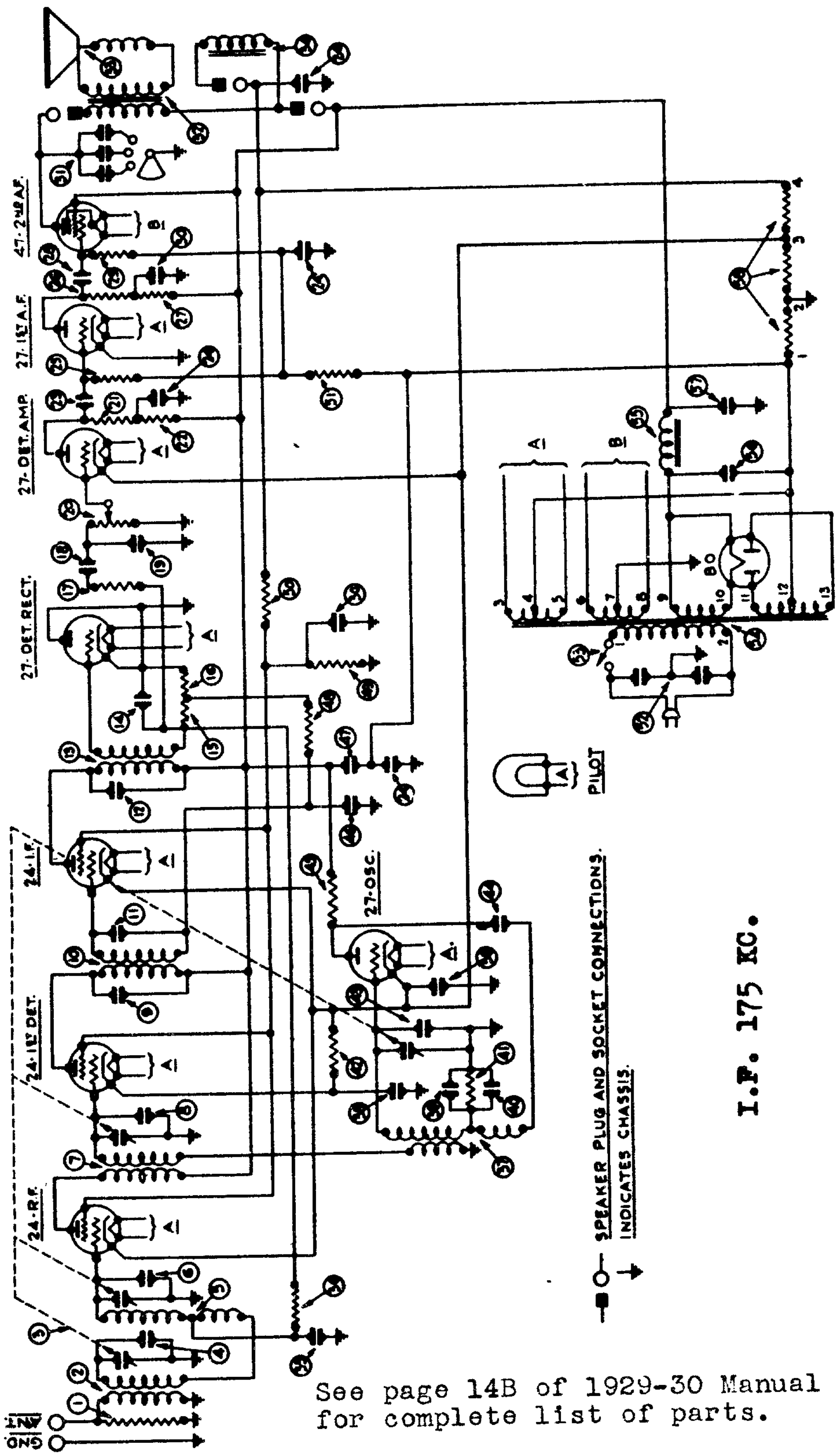
(Above Serial No. 237,001)

No. on Figs. 3 and 4	Description	Part No.
①	Resistor (10,000 ohms)	4412
②	First R. F. Transformer	03360
③	Gang Condenser (50-60 cycles)	03001
	Gang Condenser (25-40 cycles)	03078
④	Compensating Condenser (part of gang condenser assembly)	
⑤	Second R. F. Transformer	03014
⑥	Compensating Condenser (part of gang condenser assembly)	
⑦	First Detector Transformer	03015
⑧	Compansating Condenser (part of gang condenser assembly)	
⑨	Compensating Condenser (First I. F. Primary)	03315
⑩	First I. F. Transformer	03009
⑪	Compansating Condenser (First I. F. Secondary)	03315
⑫	Compensating Condenser (Second I. F. Primary)	03317
⑬	Second I. F. Transformer	03345
⑭	Condenser (110 mmf.)	4519
⑮	Resistor (51,000 ohms)	4518
⑯	Resistor (51,000 ohms)	4518
⑰	Resistor (99,000 ohms)	4411
⑱	By-Pass Condenser (.01 mfd.)	3903-M
⑲	Condenser (.00025 mfd.)	8082
⑳	Volume Control	5366
㉑	Resistor (51,000 ohms)	4518
㉒	Resistor (70,000 ohms)	5385
㉓	By-Pass Condenser (.01 mfd.)	3903-M
㉔	Condenser (1-.1 mfd., 1-.13 mfd., 2-.25 mfd.)	03325
㉕	Resistor (240,000 ohms)	4410
㉖	Resistor (35,000 ohms)	3656
㉗	Resistor (85,000 ohms)	3656
㉘	By-Pass Condenser (.01 mfd.)	3993-P
㉙	Resistor (340,000 ohms)	4410
㉚	Condenser (.25 mfd., 1 mfd.)	03327
㉛	Tone Control	4037-A
㉜	Output Transformer	2673
㉝	Voice Coil Assembly and Cone:	
	H_2 (Large Cone)	02997
	K_2 (Small Cone)	02996
㉞	Speaker Field (Assembled with pot and frame)	
㉟	By-Pass Condenser (.05 mfd.)	3615-W
㊱	Resistor (490,000 ohms)	4517
㊲	Oscillator Coil	03016
㊳	By-Pass Condenser (.09 mfd.) double	4989-G
㊴	Compensating Condenser } Assembled	03050
㊵	Condenser (.0007 mfd.) } Assembled	
㊶	Resistor (51,000 ohms)	4518
㊷	Resistor (5,000 ohms)	5310
㊸	Compensating Condenser (part of tuning condenser assembly)	
㊹	Condenser (110 mmf.)	4519
㊺	Resistor (51,000 ohms)	4237
㊻	By-Pass Condenser (.05 mfd.)	3615-U
㊼	By-Pass Condenser (.05 mfd.)	3615-E
㊽	Resistor (490,000 ohms)	4517
㊾	Resistor (70,000 ohms)	5385
㊿	Resistor (25,000 ohms)	4516
(51)	Resistor (240,000 ohms)	3768
(52)	Condenser (.015 mfd.) double	3793-E
(53)	On-Off Switch	4095
(54)	Power Transformer (50-60 cycles)	5362
	Power Transformer (25-40 cycles)	5363
	Power Transformer (50-60 cycles, 220 volts)	5364
(55)	Choke	4951
(56)	Condenser (6 mfd.) Electrolytic type (50-60 cycles)	4916
	Condenser (10 mfd.) Electrolytic type (25-40 cycles)	5142
(57)	Condenser (6 mfd.) Electrolytic type (50-60 cycles)	4916
	Condenser (10 mfd.) Electrolytic type (25-40 cycles)	5142
(58)	B. C. Resistor	5365
	Line Cord and Plug	L-943
	Tube Shield (Large)	03373

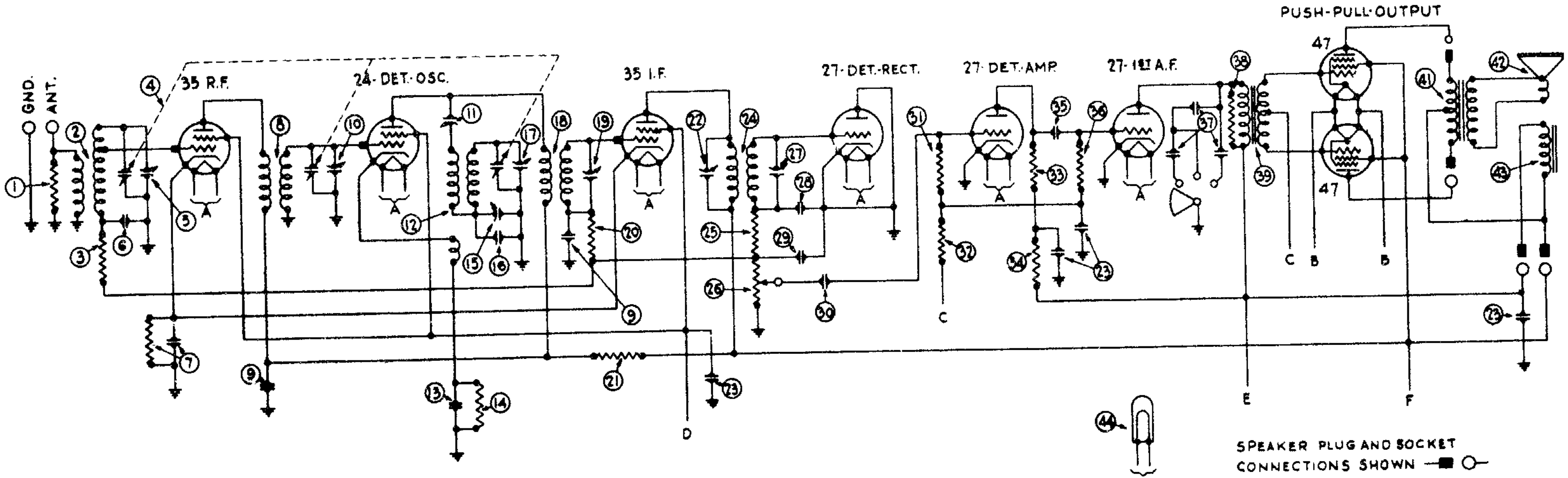
Models 90 and 90-A

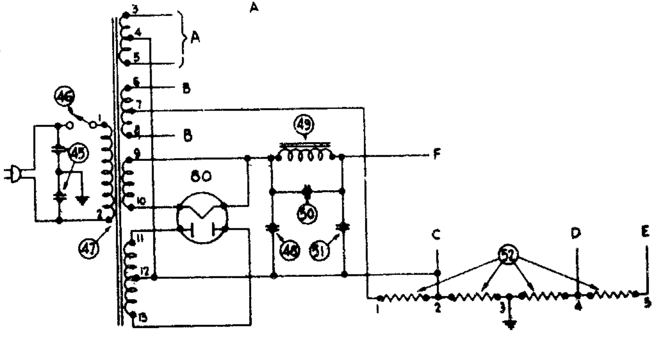
ABOVE SERIAL NO. 237,001
WITH 1- TYPE 47 TUBE

Philco Radio



See page 14B of 1929-30 Manual for complete list of parts.





No. on Figs. 1 and 2	Description	Part No.
①	Resistor (10,000 Ohms)	4412
②	Antenna Transformer	04317
③	Resistor (1,000,000 Ohms)	4409
④	Tuning Condenser (50–60 cycles)	04309
	Tuning Condenser (25–40 cycles)	04310
⑤	Compensating Condenser — Antenna — Part of Tuning Condenser Assembly	
⑥	Condenser (.05 Mfd.)	3615-L
⑦	Condenser (.09 Mfd. and 200 Ohm Resistor)	4989-L
⑧	Detector Transformer	04408
⑨	Condenser (.09 Mfd.)	3615-AJ
⑩	Compensating Condenser — Detector — Part of Tuning Condenser Assembly	
⑪	Compensating Condenser—Coupling	04000-M
⑫	Oscillator Coil	04409
⑬	Condenser (700 Mmf.)	4520
⑭	Resistor (15,000 Ohms)	6206
⑮	Compensating Condenser—Low Frequency	04000-B
⑯	Condenser (410 Mfd.)	5120
⑳	Resistor (1,000,000 Ohms)	4409
㉑	Resistor (1,000 Ohms)	4590
㉒	Compensating Condenser—Second I.F. Primary	04000-M
㉓	Condenser (2–.25, 2–.5 Mfd.)	04407
㉔	Second I.F. Transformer	04320
㉕	Resistor (99,000 Ohms)	4411
㉖	Volume Control	6015
㉗	Condenser (110 Mmf.)	4519
㉘	Condenser (110 Mmf.)	4519
㉙	Condenser (.01 Mfd.)	3908-N
㉛	Resistor (1,000,000 Ohms)	4517
㉜	Resistor (490,000 Ohms)	4516
㉝	Resistor (25,000 Ohms)	4409
㉞	Resistor (25,000 Ohms)	4409
㉟	Condenser (.01 Mfd.)	3908-X
㊱	Resistor (1,000,000 Ohms)	4409
㊲	Tone Control	03137
㊳	Resistor (51,000 Ohms)	4518
㊴	Push-Pull Input Transformer	6064
㊵	Condenser (1,000 Mmf.) *	5215
㊶	Push-Pull Output Transformer	2635
㊷	Voice Coil and Cone Assembly	02874
㊸	Speaker Field Assembled with Pot	02892
㊹	Pilot Light	3468
㊺	Condenser (.015 Mfd. Double)	3793-E
㊻	On-Off Switch	4095
㊼	Power Transformer (50–60 cycles)	6072
	Power Transformer (25–40 cycles)	6073
	Power Transformer (50–60 cycles, 230 volts)	6074
㊽	Electrolytic Condenser (6 Mfd.) 50–60 cycles	4916
㊾	Filter Choke	4819
㊿	Condenser (.15 Mfd.)	6287-B
(51)	Condenser (6 Mfd.)	4916
(52)	B. C. Resistor	6071

I.F. 260 KC.

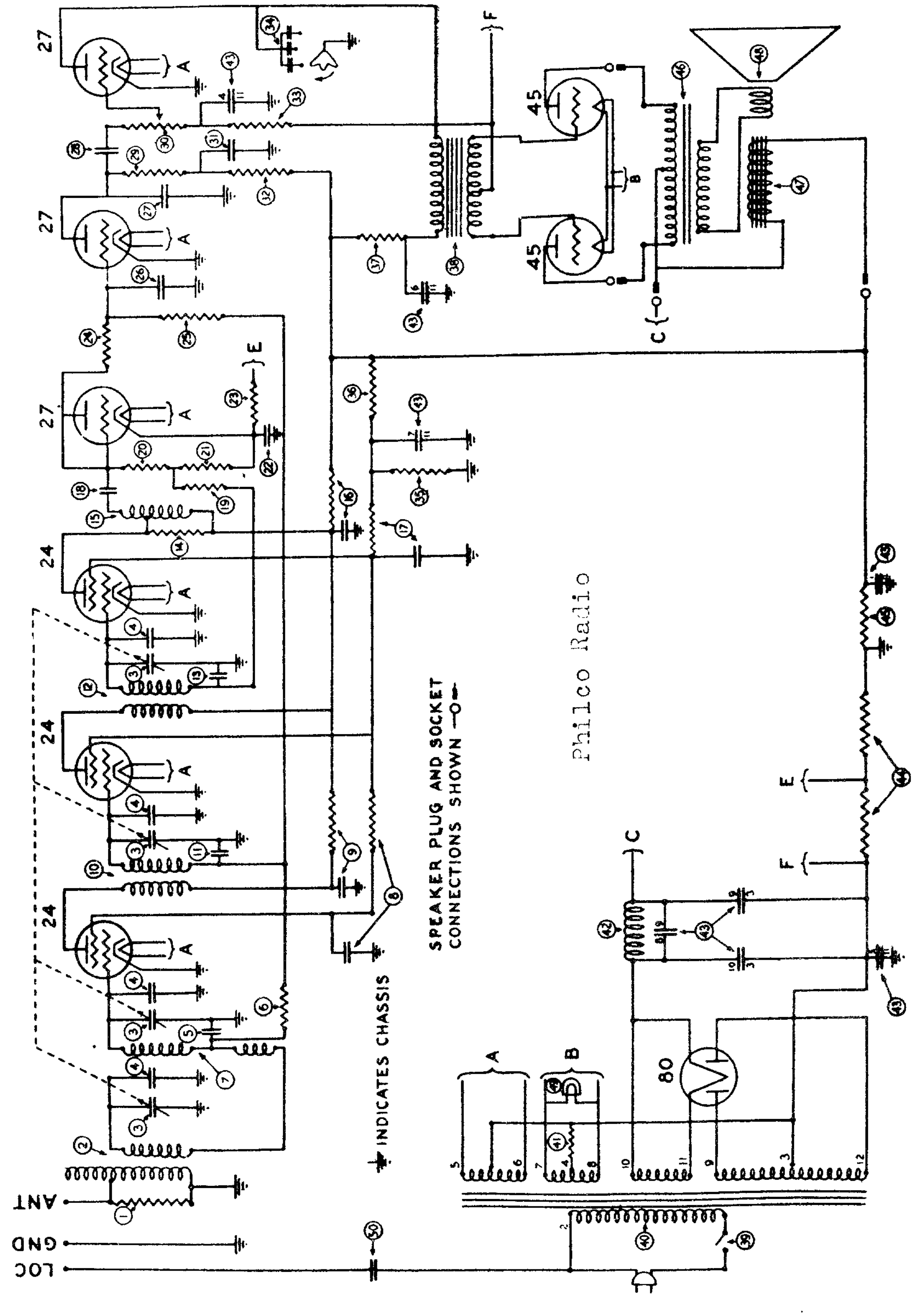
Philco Radio

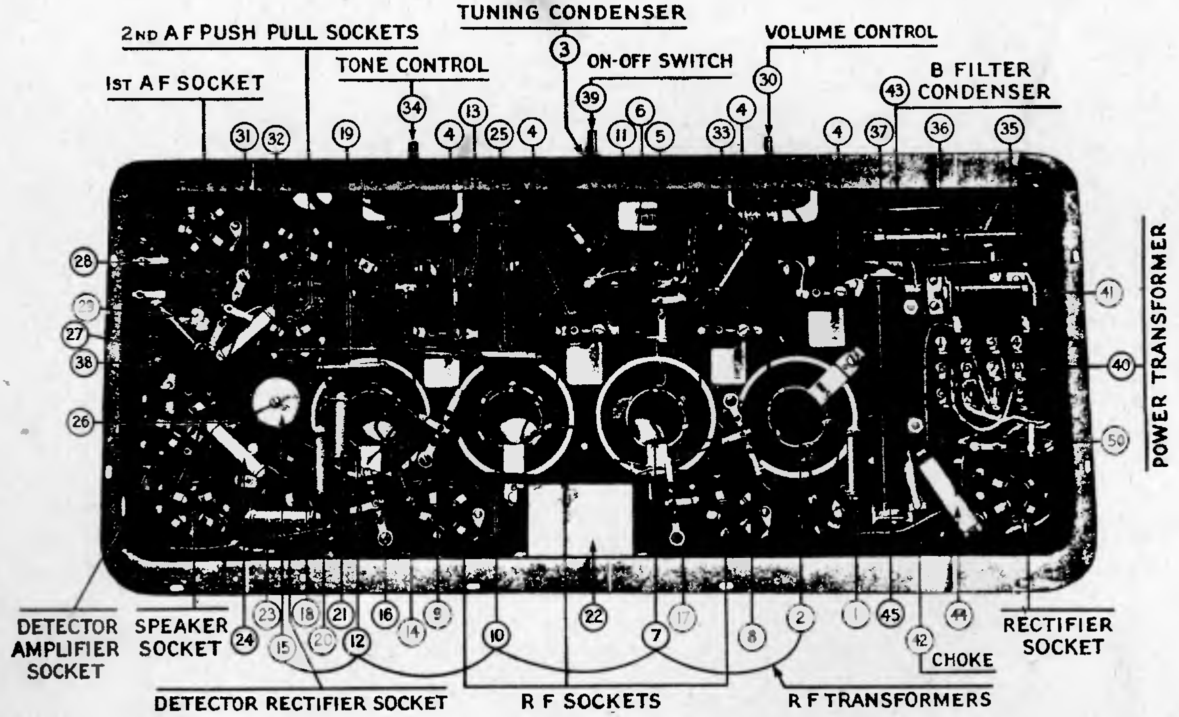
MODEL 90

WITH 2- TYPE 47 TUBES
SERIAL No. 32,001 TO B35,000
AND ABOVE B53,100

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

MODEL 96


Philco Radio
SPEAKER PLUG AND SOCKET CONNECTIONS SHOWN
INDICATES CHASSIS
ANT
GND
LOC
27
27
27
24
24
24
45
45
80
A
B
C
E
F

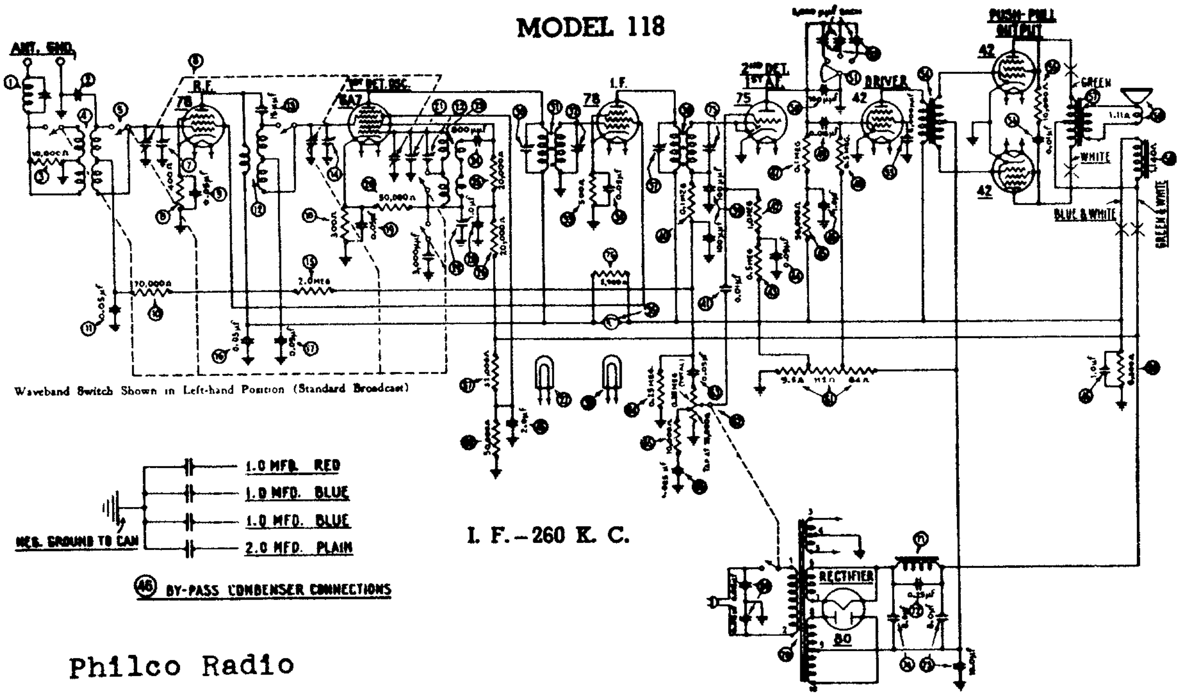


Replacement Parts for Model 96

No.	Description	Part No.
①	Antenna Resistor	3526
②	First R. F. Transformer	3744-A
③	Tuning Condenser	4000-D
④	Compensating Condenser	3772-A
⑤	By-Pass Condenser	3615-F
⑥	Resistor	3542
⑦	Second R. F. Transformer	3744-B
⑧	By-Pass Condenser and Resistor	3615-C
⑨	By-Pass Condenser and Resistor	3615-B
⑩	Third R. F. Transformer	3744-C
⑪	By-Pass Condenser	3615-E
⑫	Fourth R. F. Transformer	3744-C
⑬	By-Pass Condenser	3615-E
⑭	Resistor	3766
⑮	Fifth R. F. Transformer	3775-B
⑯	By-Pass Condenser and Resistor	3615-B
⑰	By-Pass Condenser and Resistor	3615-C
⑱	Condenser	3774
⑲	Resistor	3769
⑳	Resistor	3767
㉑	Resistor	3767
㉒	By-Pass Condenser	3583
㉓	Resistor	3767
㉔	Resistor	3768
㉕	Resistor	3769
㉖	By-Pass Condenser	3082
㉗	By-Pass Condenser	3082
㉘	Condenser	3793-C
㉙	Resistor	3769
㉚	Volume Control	4093
㉛	By-Pass Condenser	3615-D
㉜	Resistor	3768
㉝	Resistor	3542
㉞	Tone Control	4037-A
㉟	Resistor	3542
㉟	Resistor	3766
㊲	Resistor	3656
㊳	Input Transformer	3537
㊴	On-Off Switch	4095
㊵	Power Transformer (60 Cycle)	3752
㊵	Power Transformer (25 Cycle)	3753
㊶	C Resistor	3763
㊷	Choke	3422
㊸	Filter Condenser (60 Cycle)	3754
㊸	Filter Condenser (25 Cycle)	3755
㊹	Resistor	3764
㊺	B Resistor	3762
㊻	Out-Put Transformer	2848
㊼	Field Coil	2850
㊽	Voice Coil and Cone	2794-B
㊾	Pilot Lamp	3463
㊿	Condenser (LOC)	3793-B
	Knob (Vol. Control)	3579
	Knob (Tuning Condenser)	3580
	Dial Indicator	4006
	Scale	4118
	Speaker Plug and Cable (Short)	L-1101-A
	Speaker Plug and Cable (Long)	L-1102-A

NOTE: The first two Compensating Condensers ④ are 3772-A; the third and fourth Condensers are 3968-A.

MODEL 118



Waveband Switch Shown in Left-hand Position (Standard Broadcast)

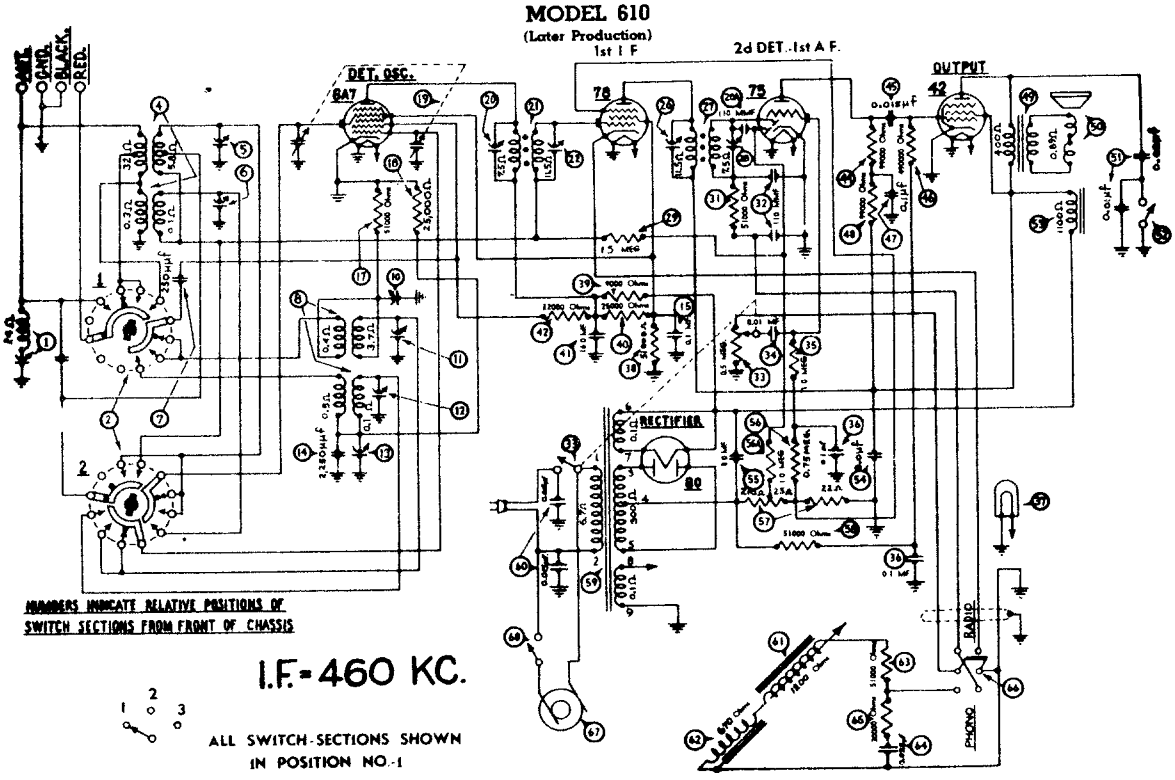
I. F.—260 K. C.

㊻ BY-PASS CONDENSER CONNECTIONS

Philco Radio

MODEL 610

(Later Production)

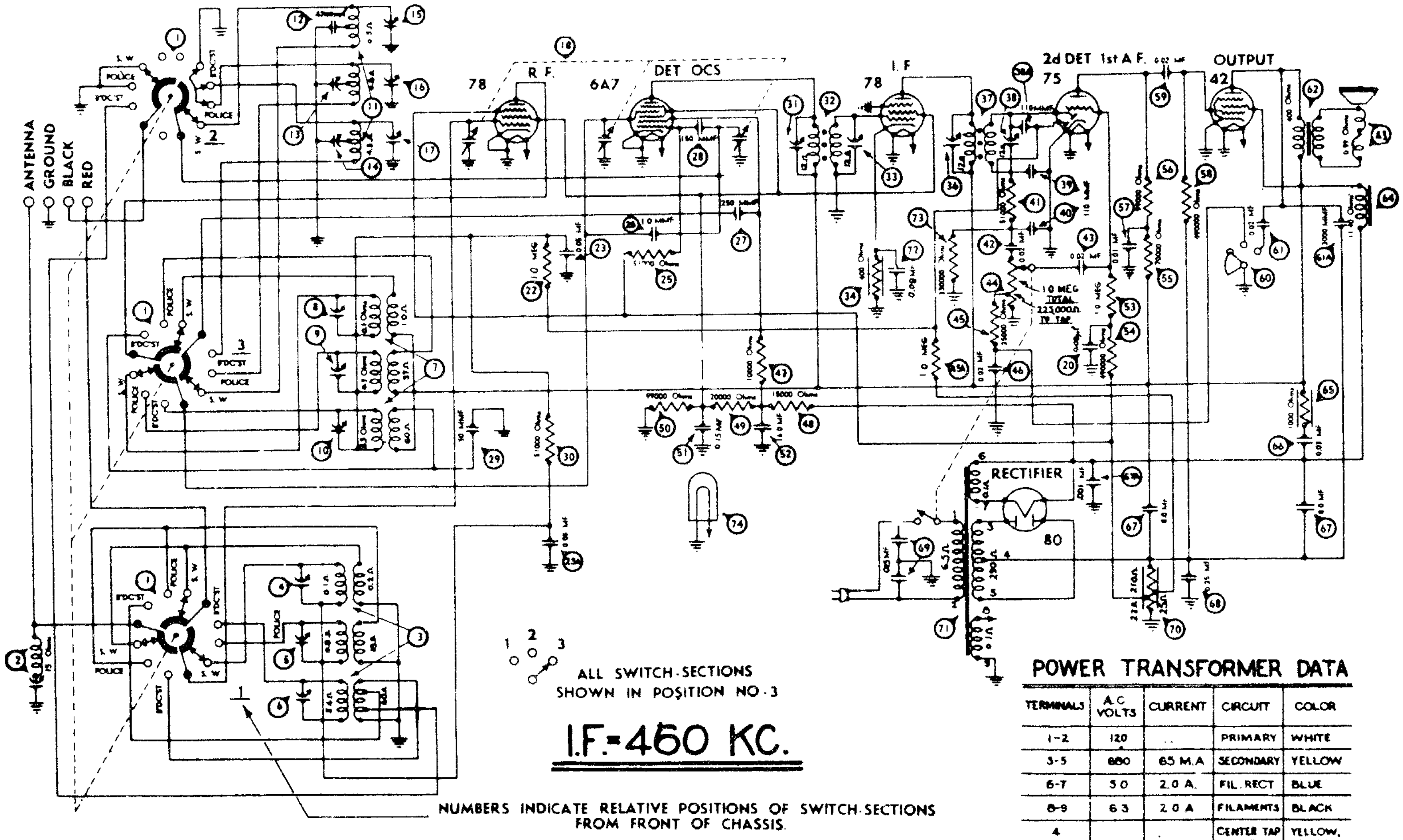


NUMBERS INDICATE RELATIVE POSITIONS OF SWITCH SECTIONS FROM FRONT OF CHASSIS

ALL SWITCH-SECTIONS SHOWN IN POSITION NO.-1

Philco Radio

MODEL 620
(Later Production)



1 2 3

ALL SWITCH-SECTIONS SHOWN IN POSITION NO-3

I.F.=460 KC.

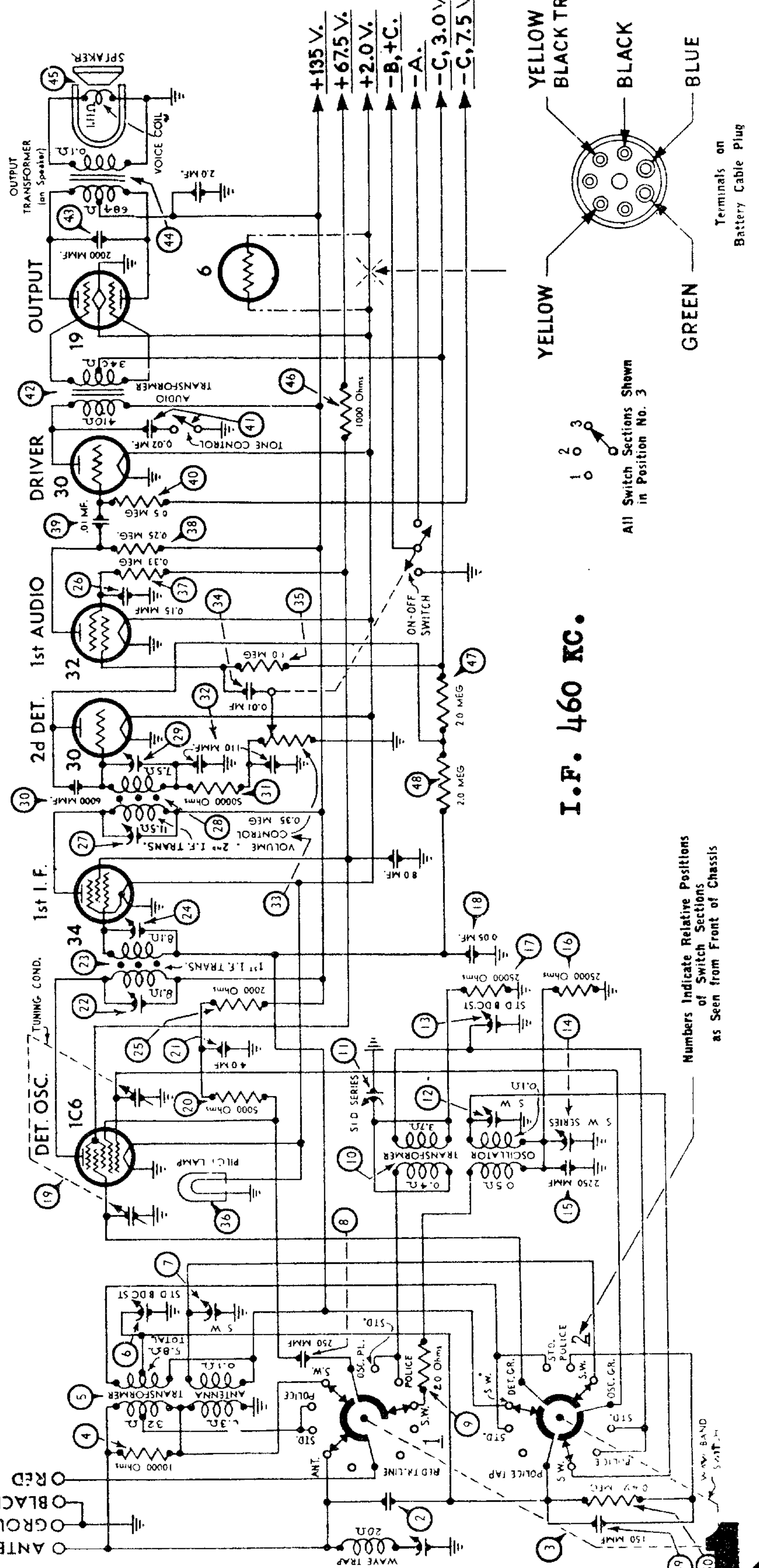
NUMBERS INDICATE RELATIVE POSITIONS OF SWITCH-SECTIONS FROM FRONT OF CHASSIS.

POWER TRANSFORMER DATA

TERMINALS	A.C. VOLTS	CURRENT	CIRCUIT	COLOR
1-2	120	..	PRIMARY	WHITE
3-5	880	65 M.A.	SECONDARY	YELLOW
6-7	5.0	2.0 A.	FIL. RECT	BLUE
8-9	6.3	2.0 A	FILAMENTS	BLACK
4		.	CENTER TAP OF 3-5	YELLOW, GREEN TRACER

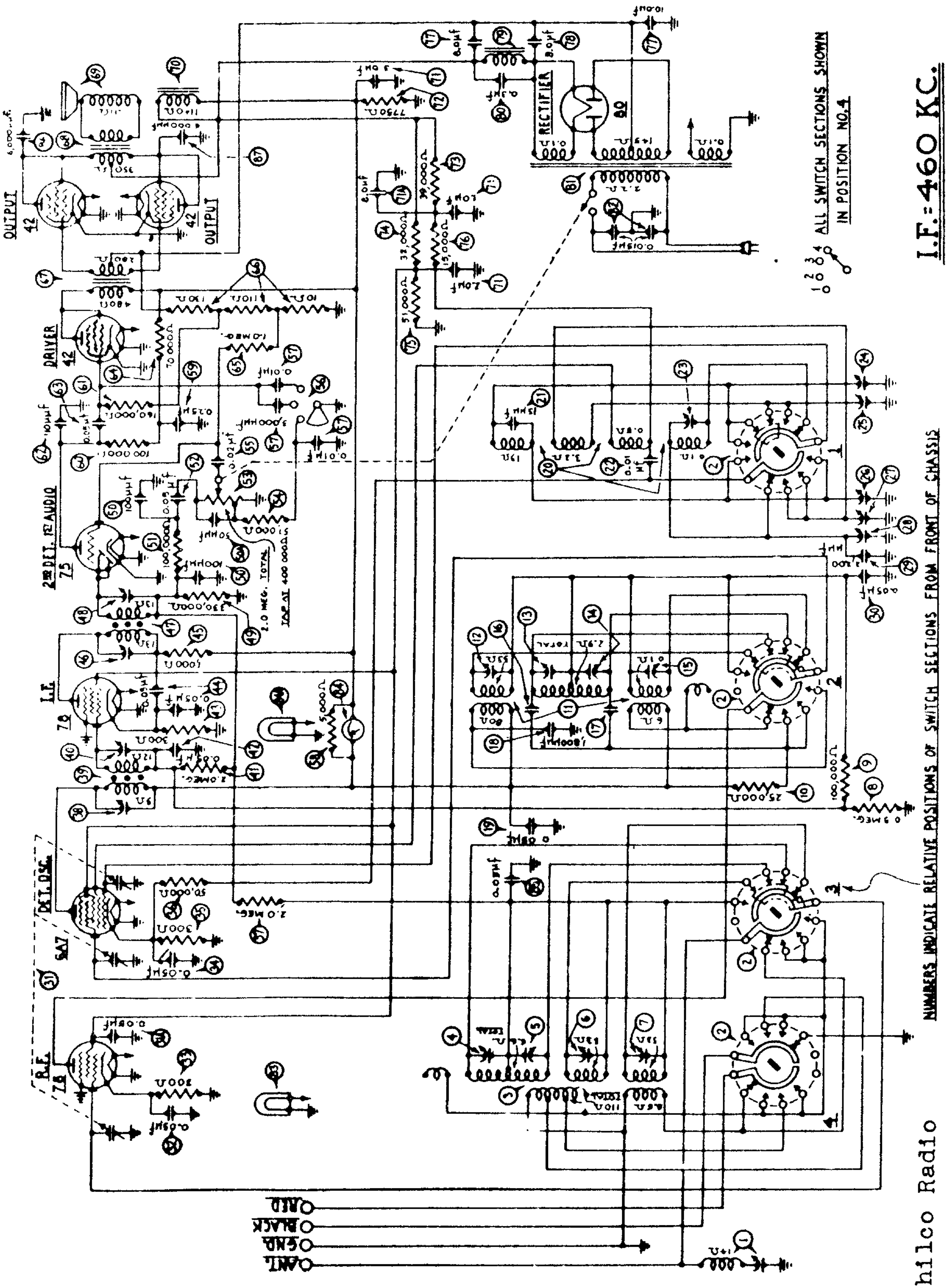
Philco Radio

MODEL 623
(Battery Operated)

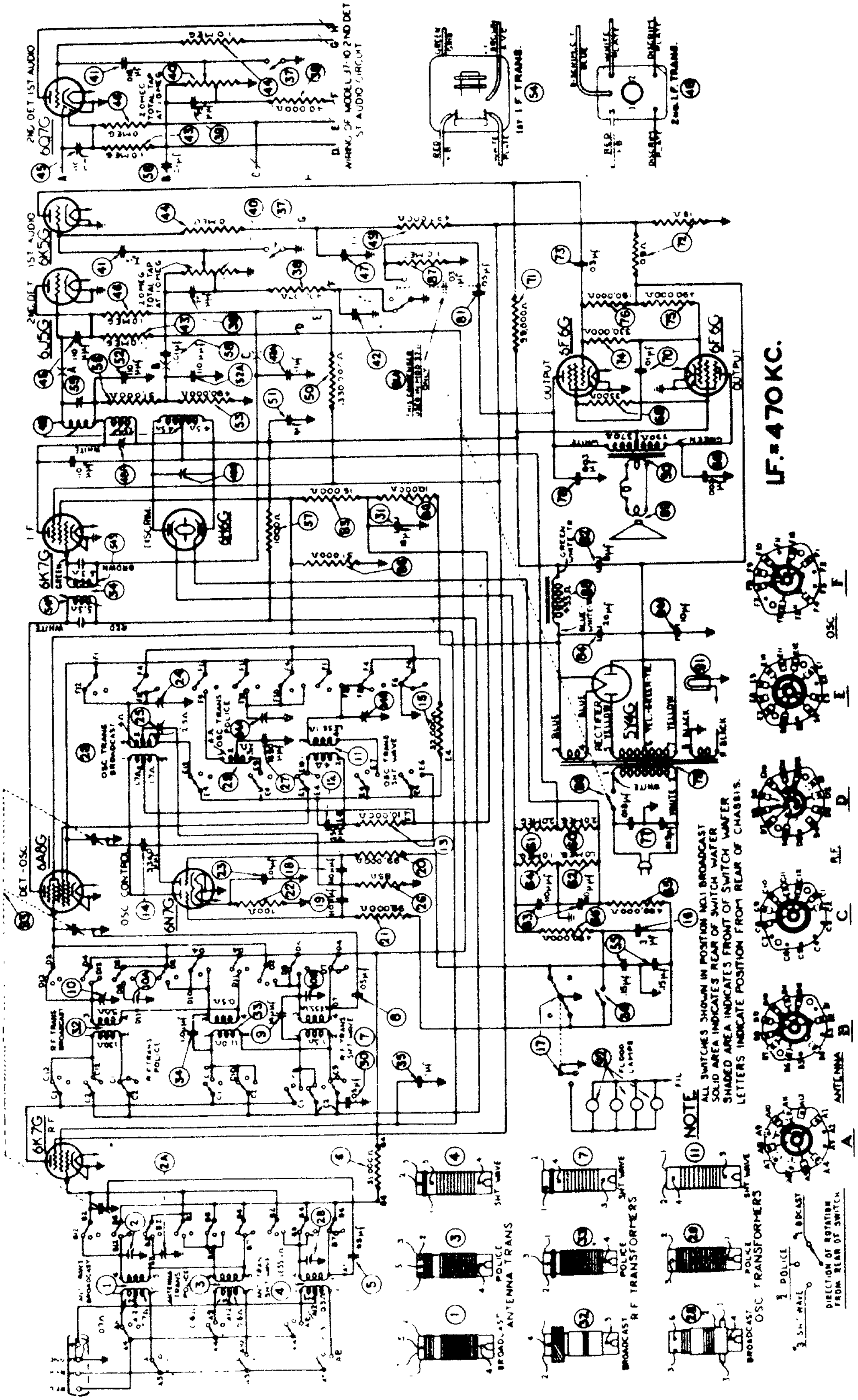


Philco Radio

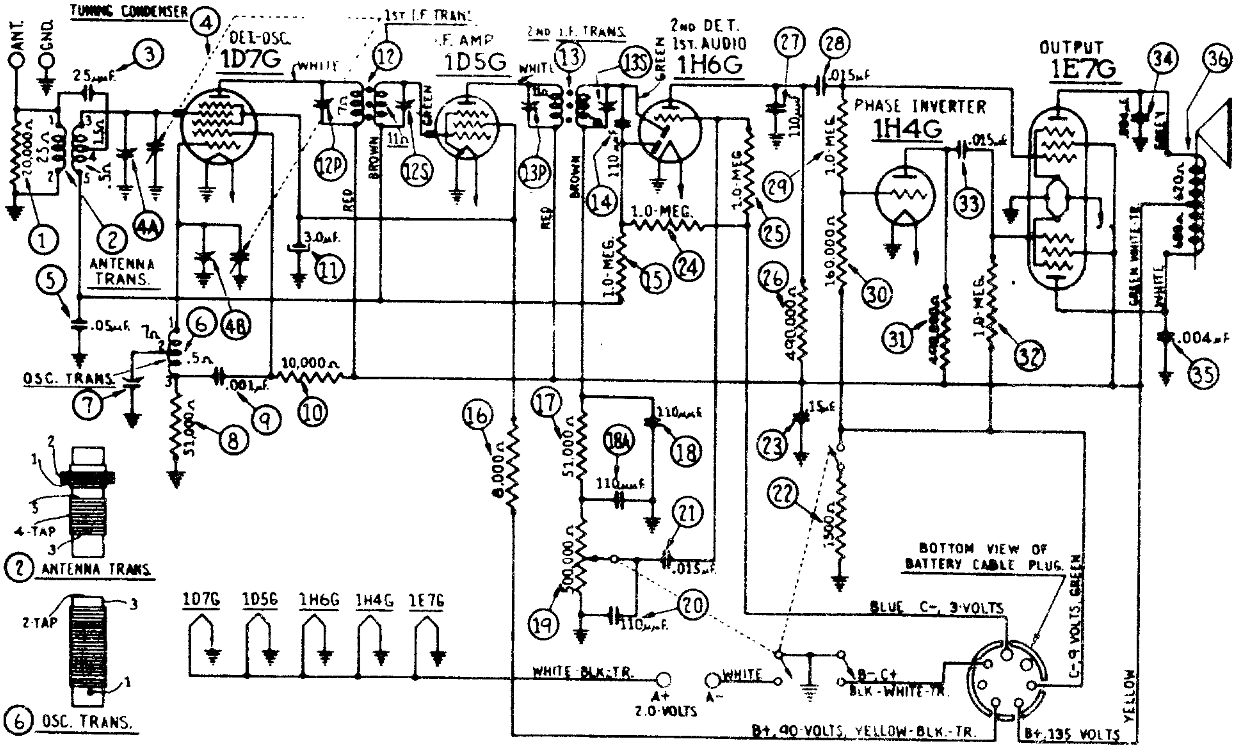
MODEL 650

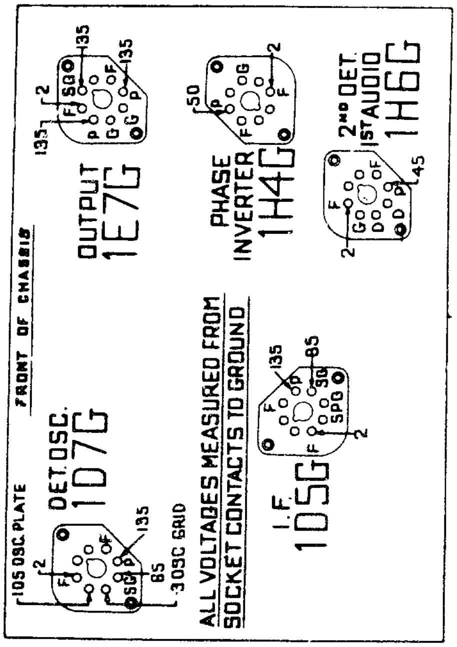

OUTPUT 42
OUTPUT 42
DRIVER 42
2ND DET. 1ST AUDIO 75
I.F. 78
DET. OSC. 6A7
R.F. 78
RECTIFIER 80
ANT.
GND.
BLACK
RED
I.F.=460 KC.
ALL SWITCH SECTIONS SHOWN IN POSITION NO.4
NUMBERS INDICATE RELATIVE POSITIONS OF SWITCH SECTIONS FROM FRONT OF CHASSIS

Philco Radio


Philco Radio
Models 37-10, 37-11
I.F.=470KC.
6Q7G 2ND DET 1ST AUDIO
WIRING OF MODEL 37-10 2ND DET 1ST AUDIO CIRCUIT
6K5G 2ND DET 1ST AUDIO
6J5G
6F6G OUTPUT
6F6G OUTPUT
6K7G I.F.
6H6G
OSC. CONTROL
6A8G DET-OSC
6N7G
6K7G R.F.
5Y4G RECTIFIER
1ST I.F. TRANS.
2ND I.F. TRANS.
NOTE
ALL SWITCHES SHOWN IN POSITION NO.1 BROADCAST
SOLID AREA INDICATES REAR OF SWITCH WAFER
SHADED AREA INDICATES FRONT OF SWITCH WAFER
LETTERS INDICATE POSITION FROM REAR OF CHASSIS
DIRECTION OF ROTATION FROM REAR OF SWITCH
1 POLICE
2 BDCAST
3 SH. WAVE
ANTENNA A
B
R.F. C
D
E
OSC F
BROADCAST ANTENNA TRANS
POLICE ANTENNA TRANS
SHT WAVE
BROADCAST R.F. TRANSFORMERS
POLICE
SHT WAVE
BROADCAST OSC TRANSFORMERS
POLICE
SHT WAVE
DIAL LAMPS

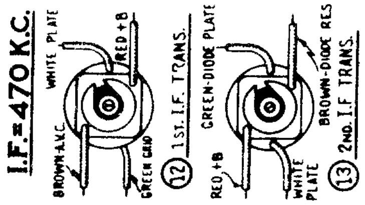
PHILCO Model 37-33

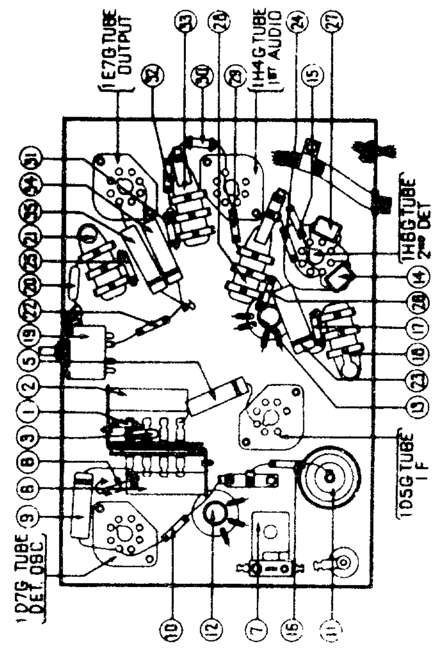




View of Sockets from Underside Chassis

The voltages indicated by arrows were measured with a Philco 25 Circuit Tester which contains a voltmeter having a resistance of 1000 ohms per volt. Volume Control at minimum.





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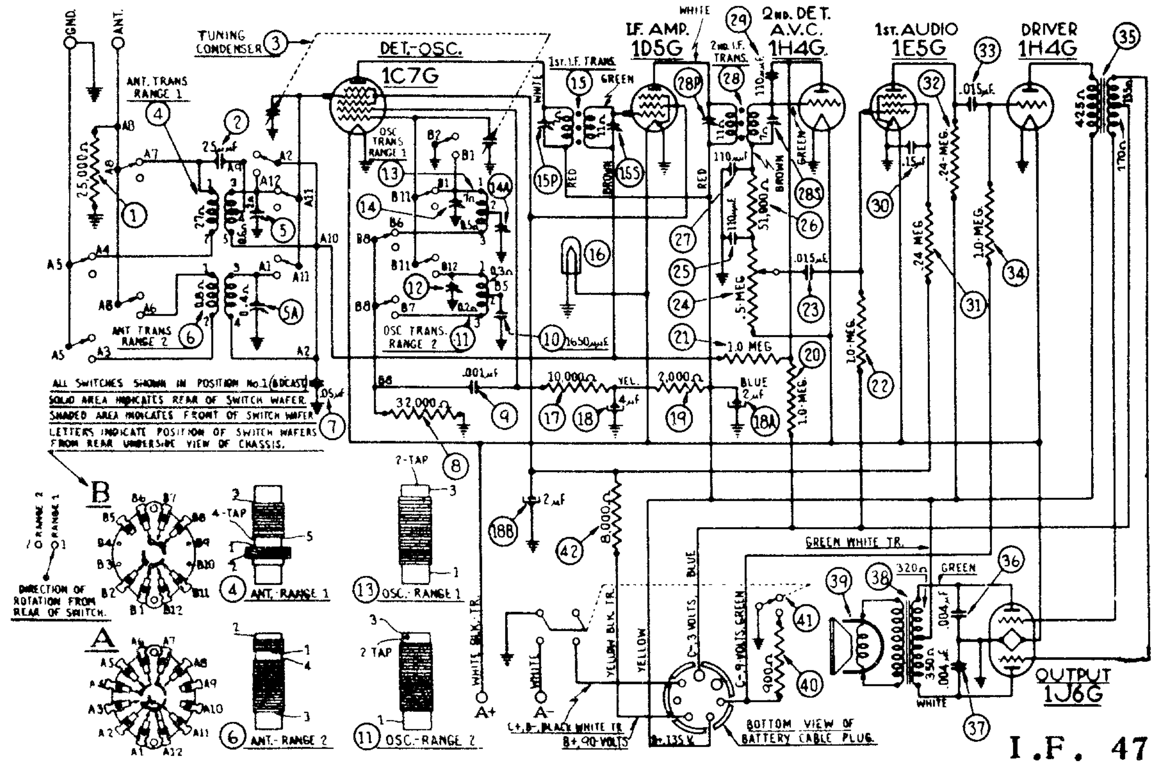
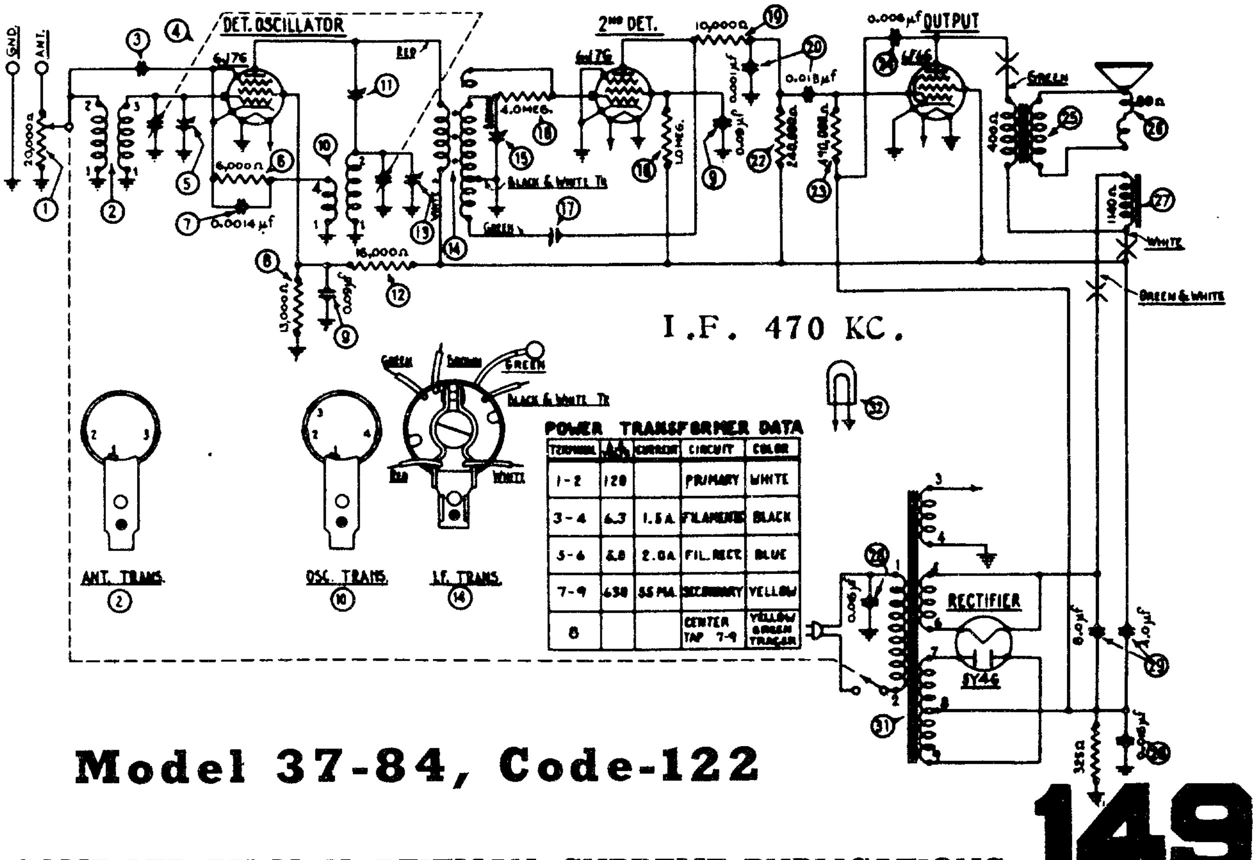
PHILCO *Model 37-38*



I.F. 470 KC.

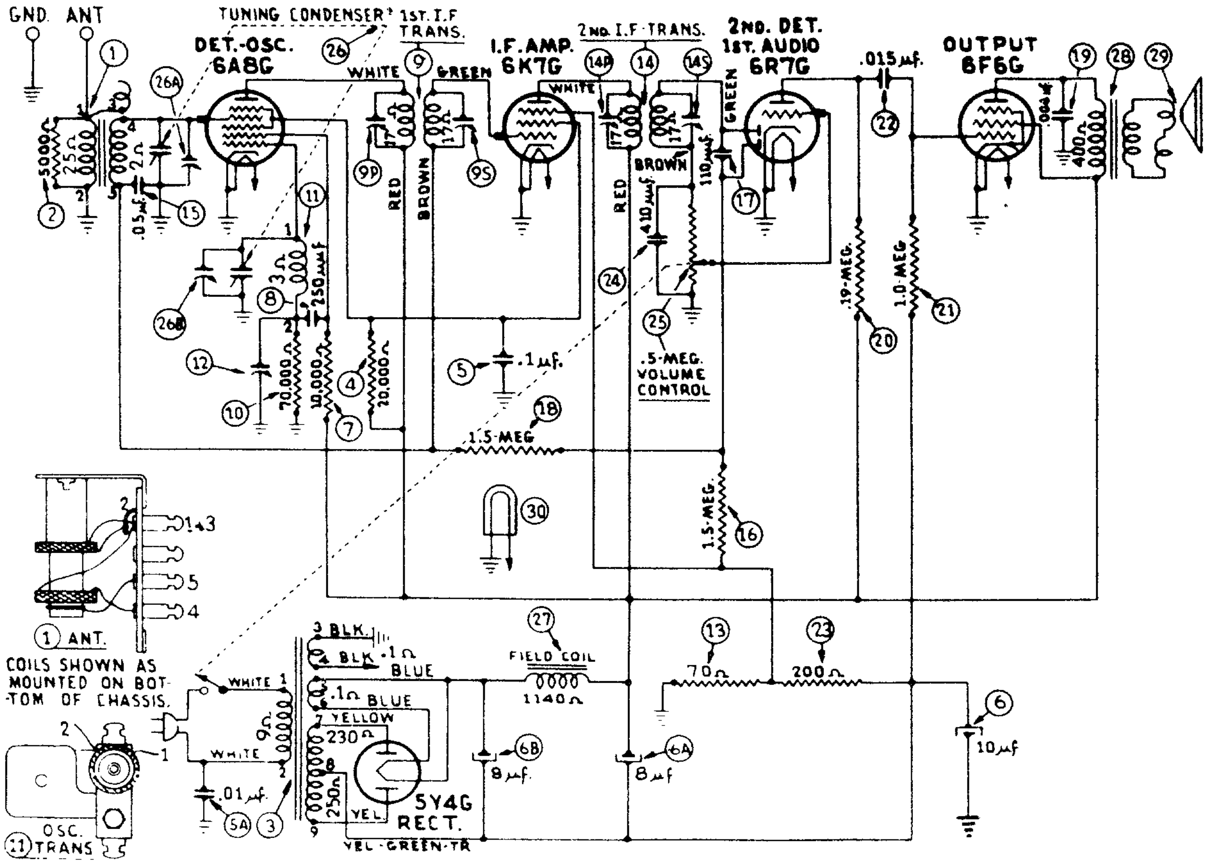


POWER TRANSFORMER DATA

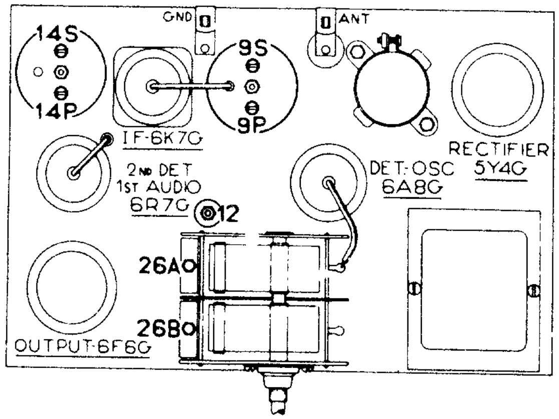
TERMINAL	A.C.	CURRENT	CIRCUIT	COLOR
1-2	120		PRIMARY	WHITE
3-4	6.3	1.5A.	FILAMENTS	BLACK
5-6	5.0	2.0A	FIL. RECT.	BLUE
7-9	630	55 MA.	SECONDARY	YELLOW
8			CENTER TAP 7-9	YELLOW GREEN TRACER

Model 37-84, Code-122

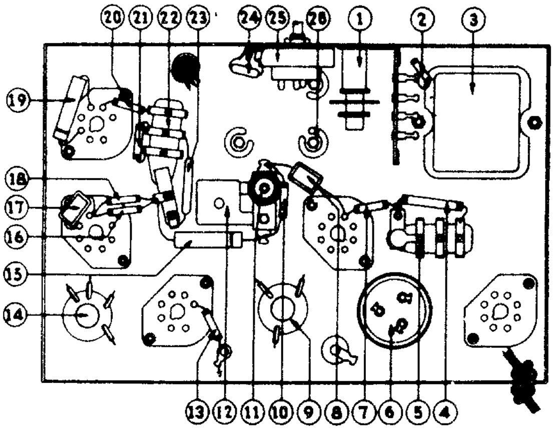
Philco Model 37-93



Schematic Diagram, Model 37-93



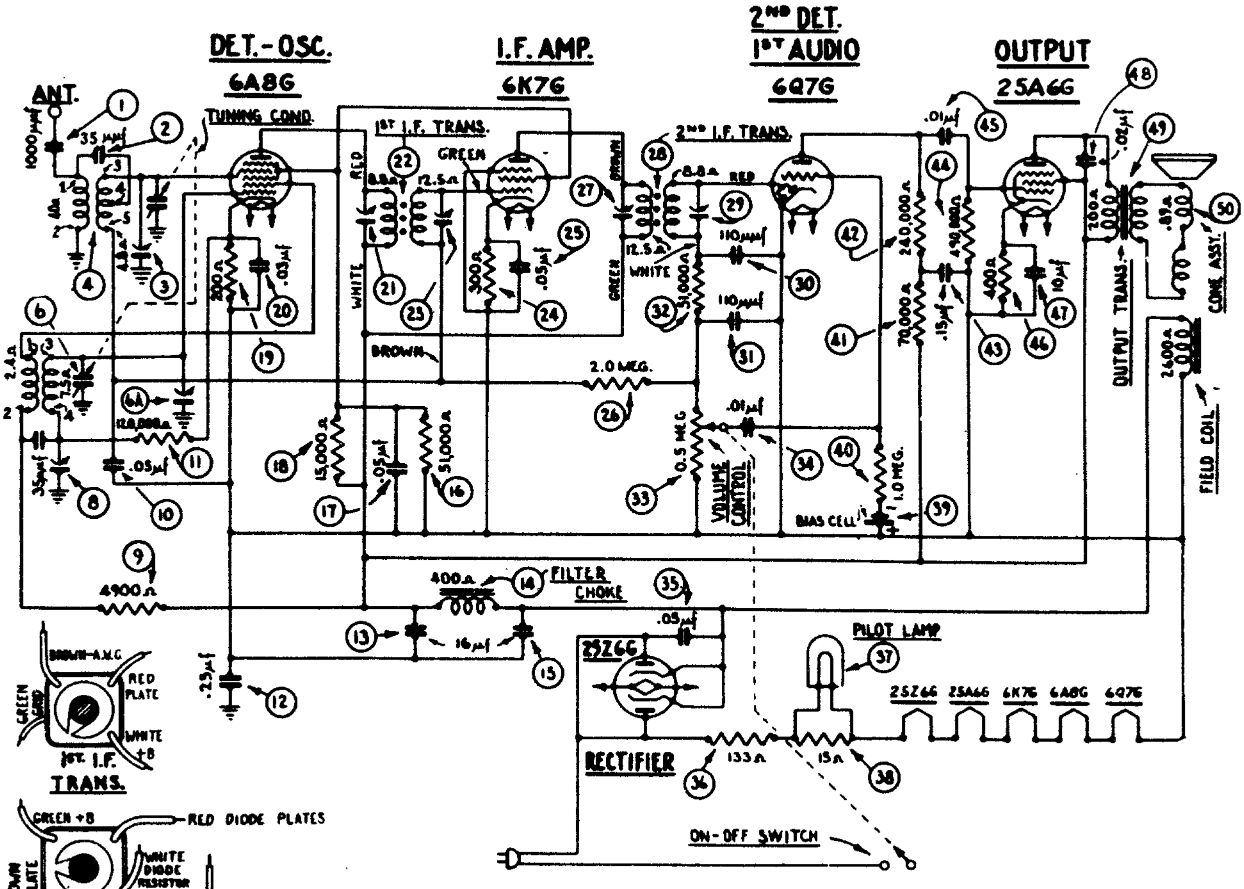
Locations of R. F. and I. F. Compensators

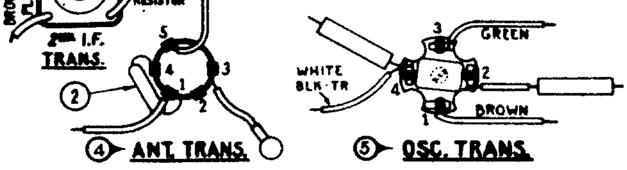


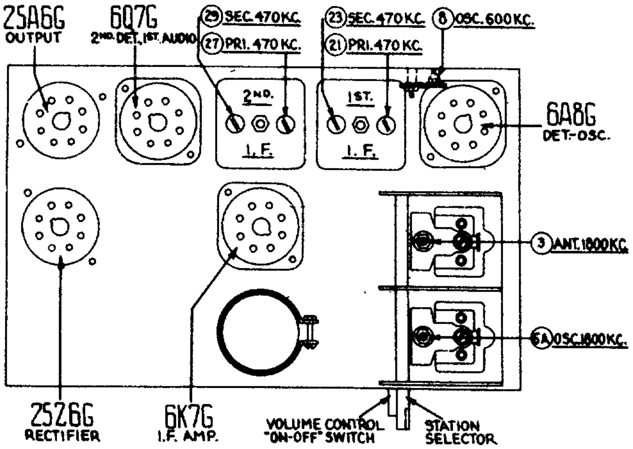
Part Locations, underside of Chassis

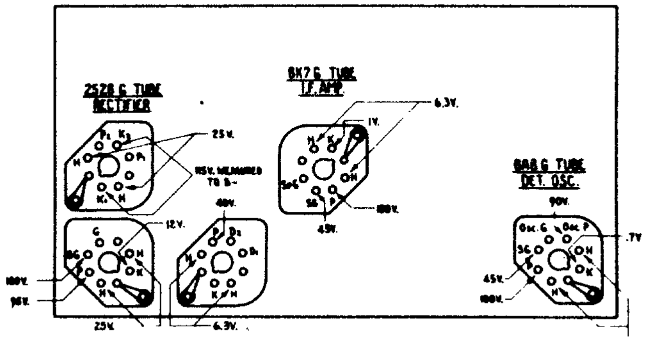
I.F. 470 KC.

PHILCO *Model 37-602*









Tube Sockets as viewed from underside of chassis. (Voltages measured from socket contacts to B—)

TYPE CIRCUIT: Superheterodyne with pentode output.

POWER SUPPLY: 115 V., 25 or 60 cycle, A. C.; D. C.

TUBES USED: 1 type 6A8G, Osc. Det., 1 type 6K7G I.F. Amplifier, 1 type 6Q7G, 2nd Det. 1st audio, 1 type 25A6G output, 1 type 25Z6G rectifier.

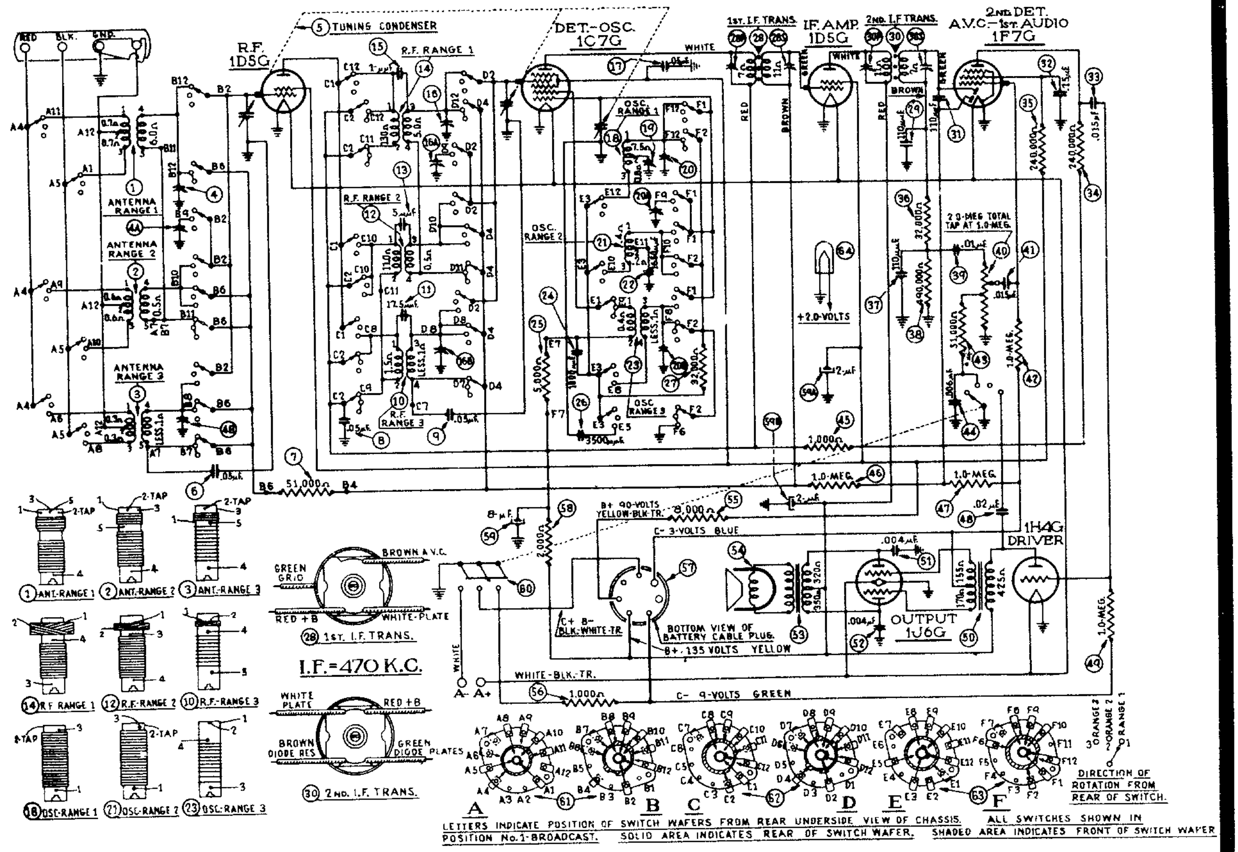
FREQUENCY RANGE: 530--1800 K.C.

INTERMEDIATE FREQUENCY: 470 K.C.

CURRENT CONSUMPTION: 55 watts.

SPEAKER: B-4.

POWER OUTPUT: ¾ watt.



Philco Radio

Replacement Parts—Model 37-623

Schem. No.	Description	Part No.
1	Antenna Transformer (530-1720 K.C.).	32-2108
2	Antenna Transformer (2.3 to 7.4 M.C.),	32-2119
3	Antenna Transformer (7.35 to 22 M.C.)	32-2109
4	Compensator (Three Sections)	31-6092
5	Tuning Condenser	31-1818
6	Condenser (.05 mfd. Tubular)	30-4020
7	Resistor (51,00 ohms, ½ watt)	33-351339
8	Condenser (.05 mfd. Tubular)	30-4020
9	Condenser (.05 mfd. Tubular)	30-4020
10	R. F. Transformer (7.35 to 22 M.C.)	32-2126
11	Condenser (17.5 mmfd. Mica)	30-1079
12	R. F. Transformer (2.3 to 7.4 M.C.)	32-2106
13	Condenser (5 mmfd. Mica	30-1080
14	R. F. Transformer (530-1720 K.C.)	32-2105
15	Condenser (Twist wire and lug)	38-7878
16	Compensator (Three section)	31-1621
17	Condenser (.05 mfd. Tubular)	30-4020
18	Oscillator Transformer (530-1720 K.C.)	32-2120
19	Compensator (580 K.C.)	31-6036
20	Compensator (Three section)	31-6092
21	Oscillator Transformer (2.3 to 7.4 M.C.)	32-2121
22	Condenser (1650 mmfd.)	31-6096
23	Oscillator Transformer (7.35 to 22 M.C.)	32-2110
24	Condenser (1,000 mmfd. Mica)	30-4453
25	Resistor (5,000 ohms, ½ watt)	33-250393
26	Condenser (3,500 mmfd Semifixed)	31-6097
27	Resistor (32,000 ohms, ½ watt)	33-332339
28	First I. F. Transformer	32-2100
29	Condenser (110 mmfd. Mica)	30-1031
30	Second I. F. Transformer	32-2102
31	Condenser (110 mmfd. Mica)	30-1041
32	Condenser (.15 mfd. Bakelite)	6287SG
33	Condenser (.015 mfd Tubular)	30-4226
34	Resistor (240,000 ohms, ½ watt)	33-424339
35	Resistor (240,000 ohms, ½ watt)	33-424339
36	Resistor (32,000 ohms, ½ watt)	33-332339
37	Condenser (110 mmfd. Mica)	30-1031
38	Resistor (490 000 ohms, ½ watt)	33-449339
39	Condenser (.01 mfd. Tubular)	30-4124
40	Volume Control	33-5158
41	Condenser (.015 mfd. Tubular)	30-4358
42	Resistor (1 megohm, ½ watt)	33-510339
43	Resistor (51,000 ohms, ½ watt)	33-351339
44	Condenser (.006 mfd. Tubular)	30-4125

Schem. No.	Description	Part No.
45	Resistor (1,000 ohms, ½ watt)	33-210339
46	Resistor (1 megohm, ½ watt)	33-510339
47	Resistor (1 megohm, ½ watt)	33-510339
48	Condenser (.02 mfd. Tubular)	30-4113
49	Resistor (1 megohm, ½ watt)	33-510339
50	Audio Input Transformer	32-7637
51	Condenser (.004 mfd. Tubular)	30-4456
52	Condenser (.004 mfd. Tubular)	30-4456
53	Output Transformer	32-7638
54	Cone and Voice Coil Assembly KR-17.	36-3540
	Cone and Voice Coil Assembly HR-12.	36-3557
55	Resistor (8,000 ohm, ½ watt)	33-280339
56	Resistor (1,000 ohms, ½ watt)	33-210339
57	Cable Battery	41-3198
58	Resistor (2,000 ohms, ½ watt)	33-220339
59	Electrolytic Condenser (2, 2, 8 mfd.)	30-2161
60	Power and Tone Control Switch	42-1207
61	Range Switch (ANT)	42-1200
62	Range Switch (R.F.)	42-1245
63	Range Switch (Osc.)	42-1246
	Pilot Lamp Assembly	38-7875
	Pilot Lamp	34-2160
	Vernier Drive Assembly	31-1871
	Dial	27-5214
	Dial Hub	28-7187
	Dial Clamp	28-2837
	Dial Guard	27-8324
	Set Screw	W-1641
	Gear (Dial)	28-7185
	Thrust Spring	28-3611
	Thrust Washer	28-3976
	C Washer	28-3904
	Gear (Drive)	31-1884
	Mask	27-5198
	Mask Arm and Assembly	31-1940
	Shaft Coupling (Mask)	31-1941
	Felt Washers	27-8399
	Washer	27-8318
	Snap Fastener	28-4279
	Indicator Bracket and Lens Assembly	38-7912
	Mask Guide and Lamp Support	38-7844
	Shaft and Index Plate (Range Switch)	42-1173
	Shaft (Volume Control)	38-8059
	Retaining Clip (Vol. Shaft)	28-4394

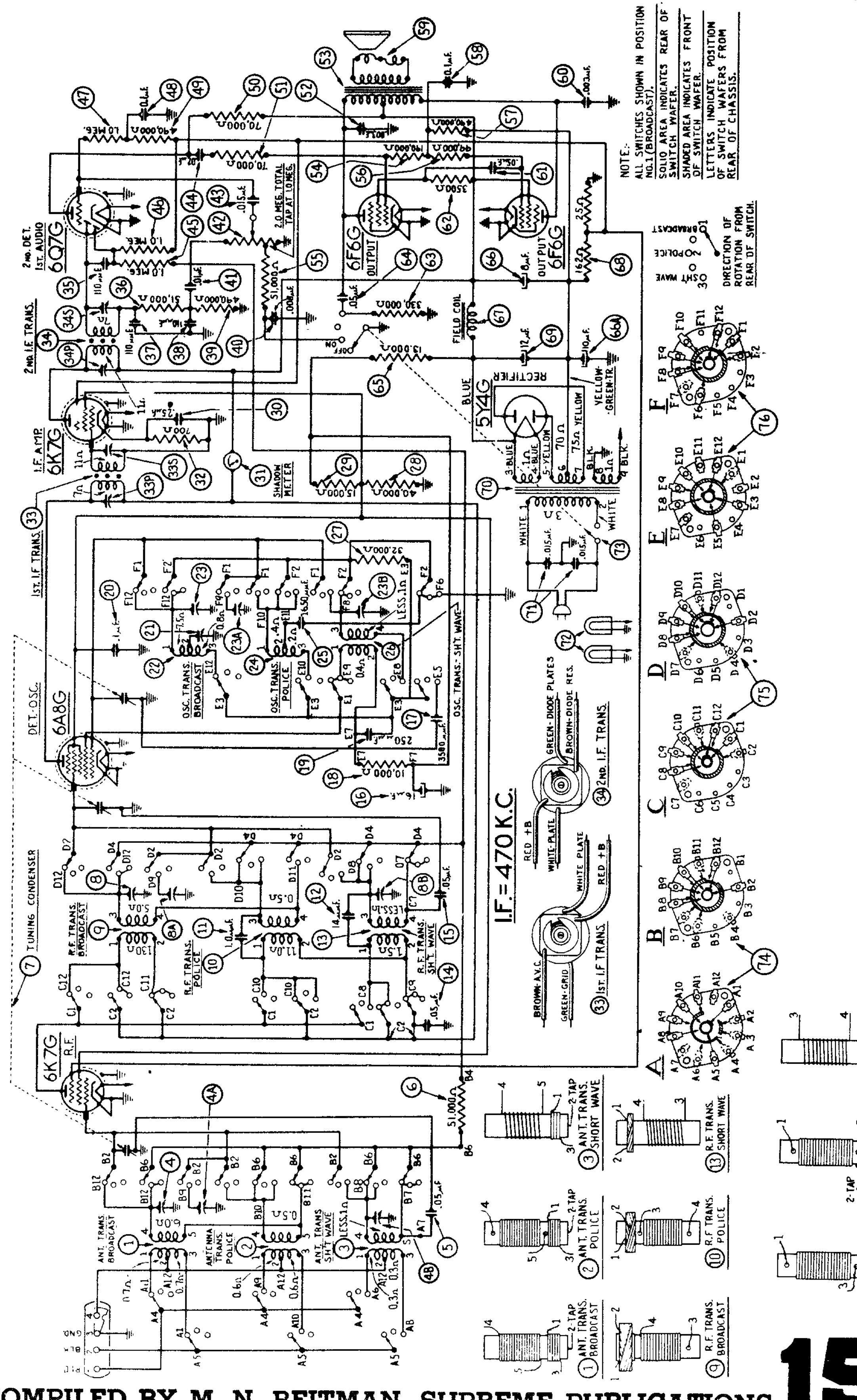
Schem. No.	Description	Part No.
	Spring (Vol. Shaft)	28-4117
	Socket (8 prong)	27-6058
	Socket (7 prong)	27-6057
	Shield Tube	28-2726
	Base Tube Shield	28-3898
	Grommet Mtg. R. F. Unit	27-4317
	Sleeve Mtg. R. F. Unit	28-2257
	Screw Mtg. R. F. Unit	W-729
	Washer Mtg. R. F. Unit	28-3927
	Washer Mtg. R. F. Unit	27-8339
	Rubber Mtg. Tuning Condenser	27-4325
	Mtg. Plate (Trans.)	28-3808
	Mtg. Spacer (Trans.)	27-8228
	Mtg. Screw (Trans.)	W-1635
	Terminal Panel I. F. Unit	38-7703
	Cable Speaker	41-3207
	Mtg. Bolt (Chassis)	W-1495
	Mtg. Rubbers	5189
	Mtg. Bushing	27-4360
	Knob	27-4330
	Knob	27-4331
	Knob	27-4326
	Knob	27-4332
	"B" Battery	41-8007
	"A" Battery (Wet)	172R
	"A" Battery (Dry)	41-8011
	Ballast Lamp	1FI
	Bezel Plate and Frame	40-5939
	Gasket	27-8311
	Glass	27-8298
	Ring	28-3967
	Screws	W-1644

B CABINET

Description	Part No.
Baffle and Silk Assembly	40-5970
Speaker—KR17	36-1248

J CABINET

Description	Part No.
Speaker—HR12	36-1250
Baffle and Silk Assembly	40-5971
Speaker	36-1250
Speaker Ring	27-8016
Speaker Bolts	W-1693

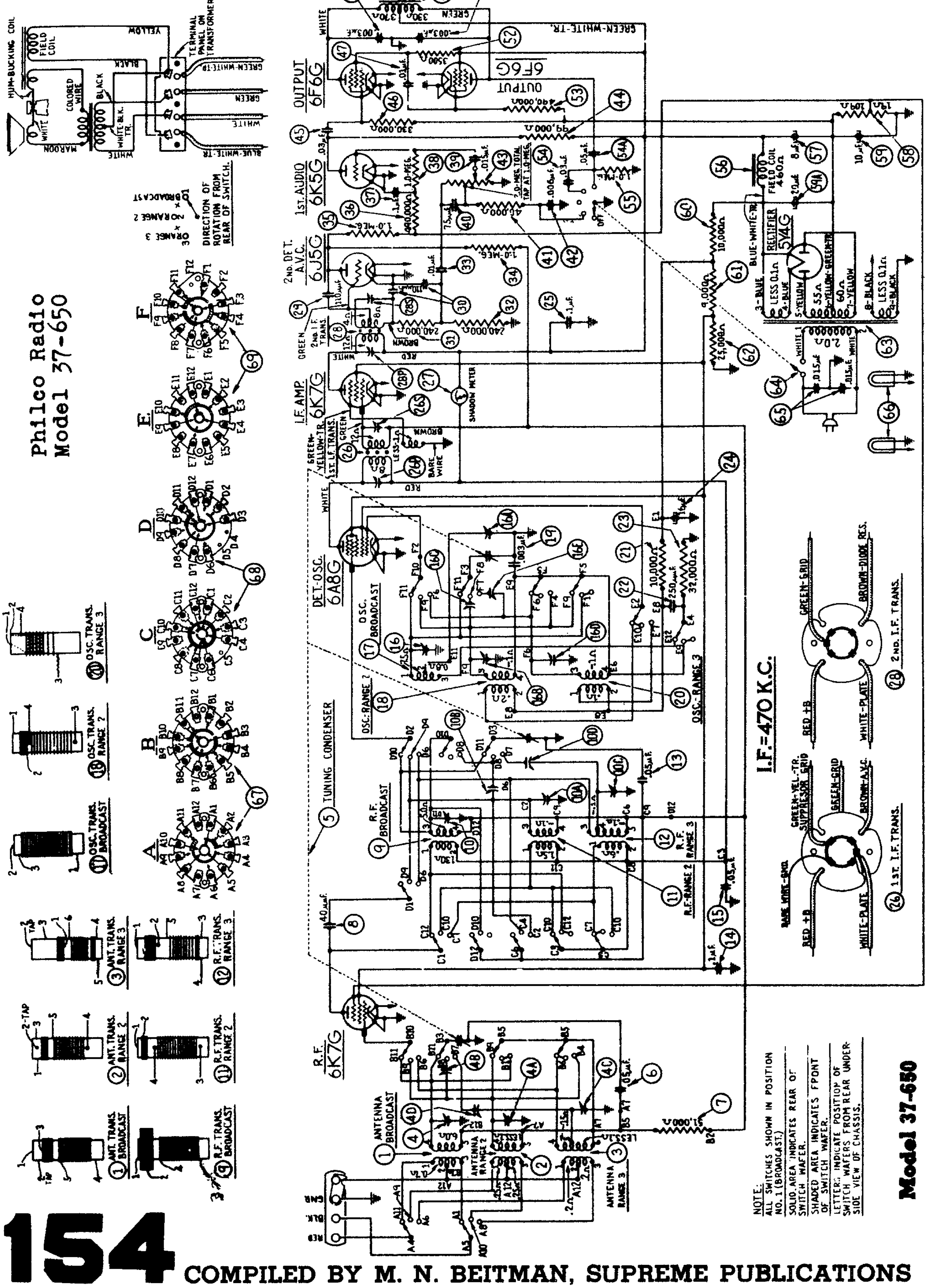


NOTE:-
ALL SWITCHES SHOWN IN POSITION NO.1 (BROADCAST).
SOLID AREA INDICATES REAR OF SWITCH WAFER.
SHADED AREA INDICATES FRONT OF SWITCH WAFER.
LETTERS INDICATE POSITION OF SWITCH WAFERS FROM REAR OF CHASSIS.

PHILCO

Model 37-640

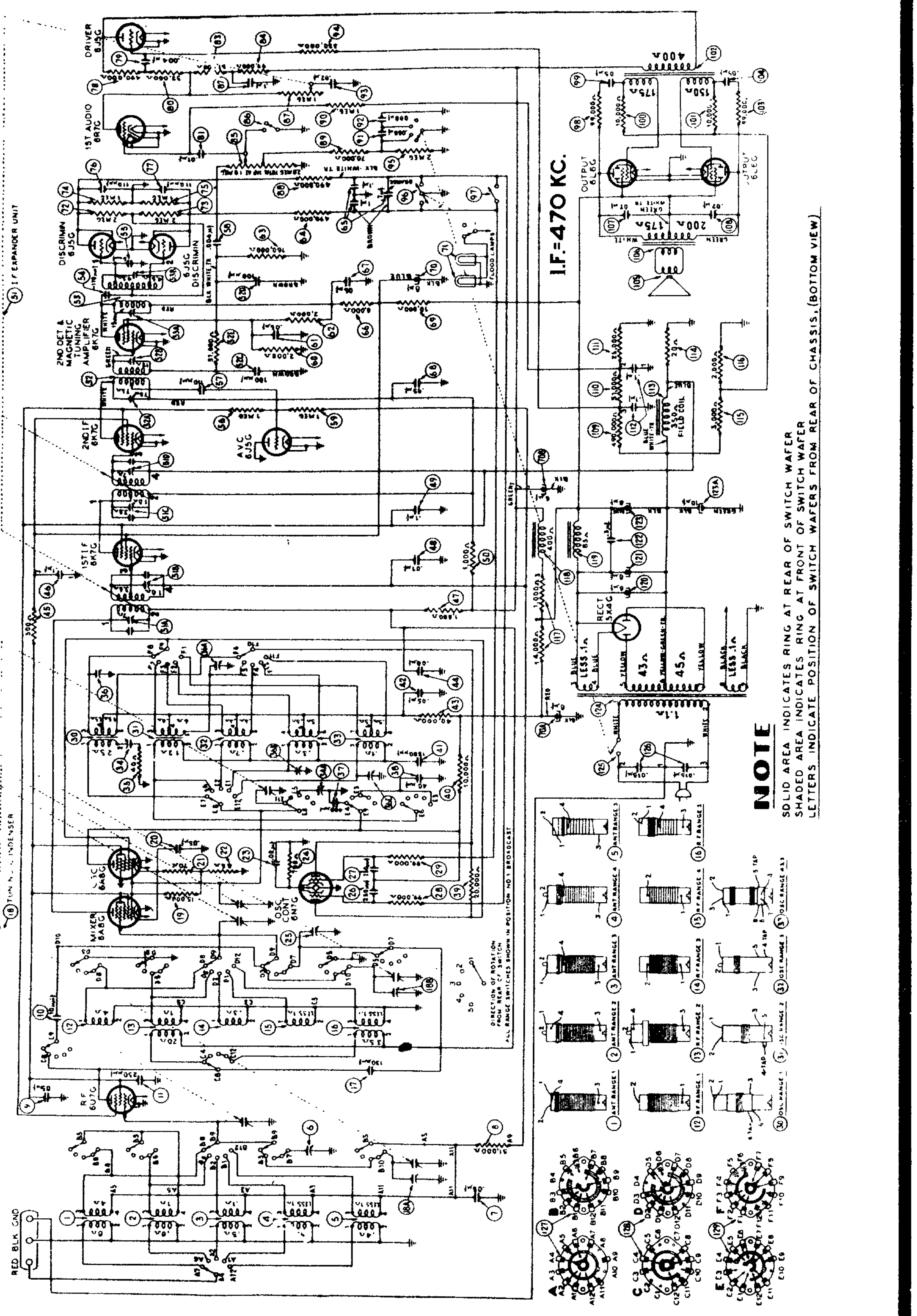
Philco Radio Model 37-650



NOTE:
ALL SWITCHES SHOWN IN POSITION NO. 1 (BROADCAST.)
SOLID AREA INDICATES REAR OF SWITCH WAFER.
SHADED AREA INDICATES FRONT OF SWITCH WAFER.
LETTERS INDICATE POSITION OF SWITCH WAFERS FROM REAR UNDER-SIDE VIEW OF CHASSIS.

Model 37-650

PHILCO . . . . Model 38-116, Code 121

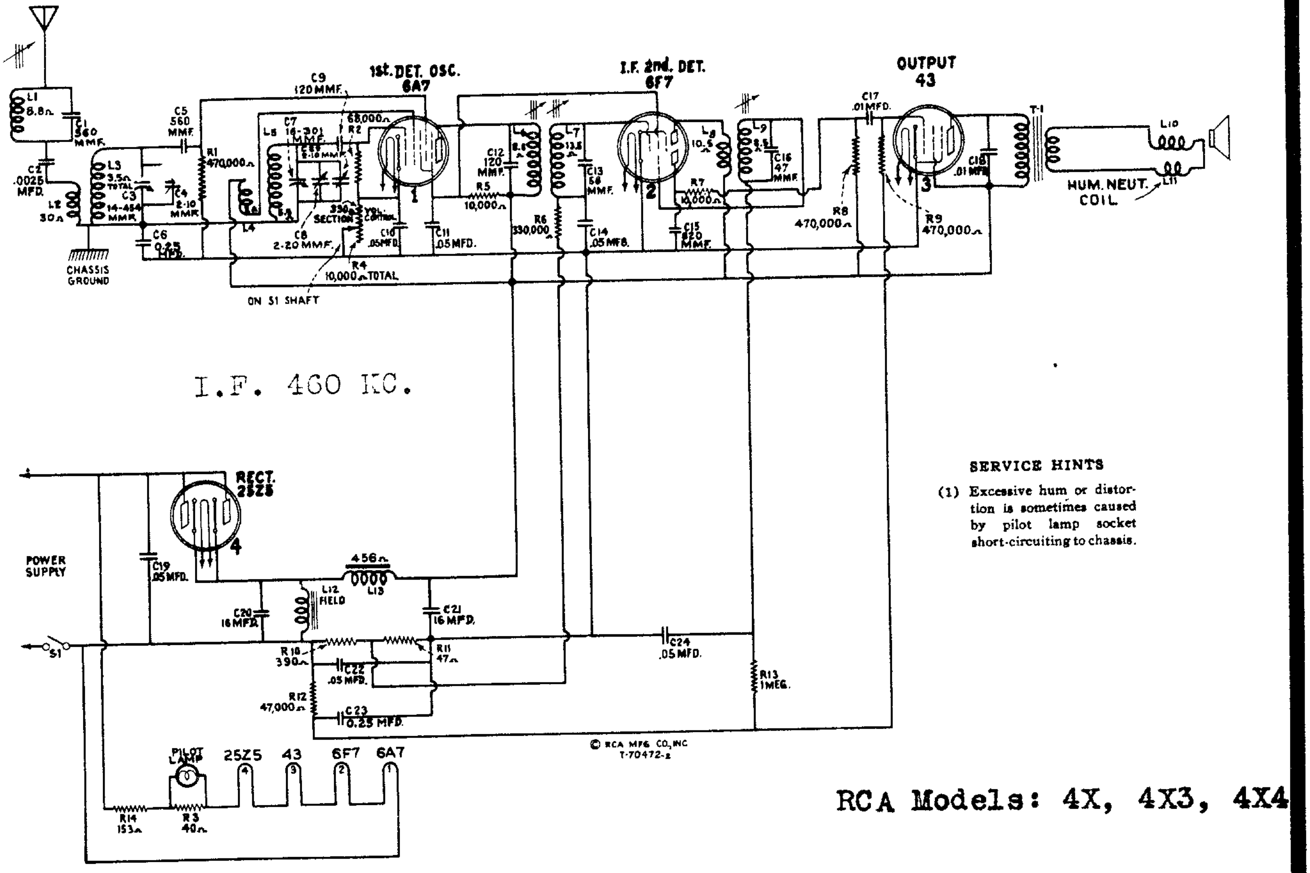


I.F.=470 KC.

NOTE

SOLID AREA INDICATES RING AT REAR OF SWITCH WAFER
SHADED AREA INDICATES RING AT FRONT OF SWITCH WAFER
LETTERS INDICATE POSITION OF SWITCH WAFERS FROM REAR OF CHASSIS, (BOTTOM VIEW)

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

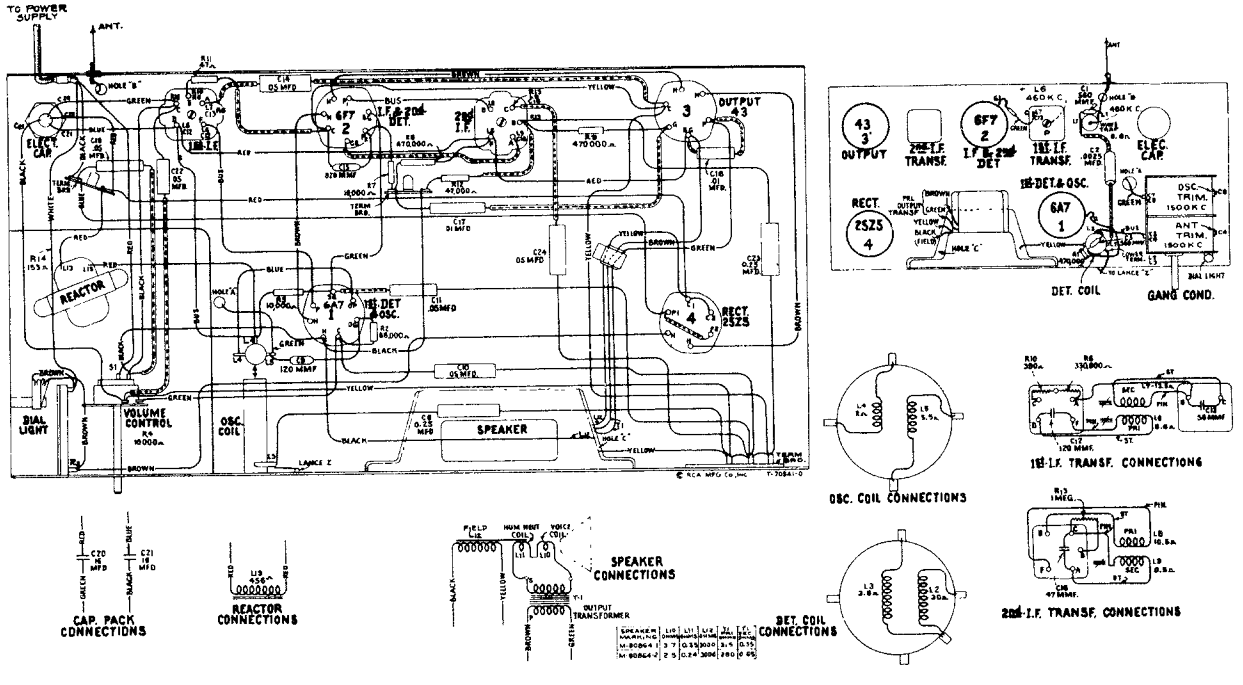


SERVICE HINTS

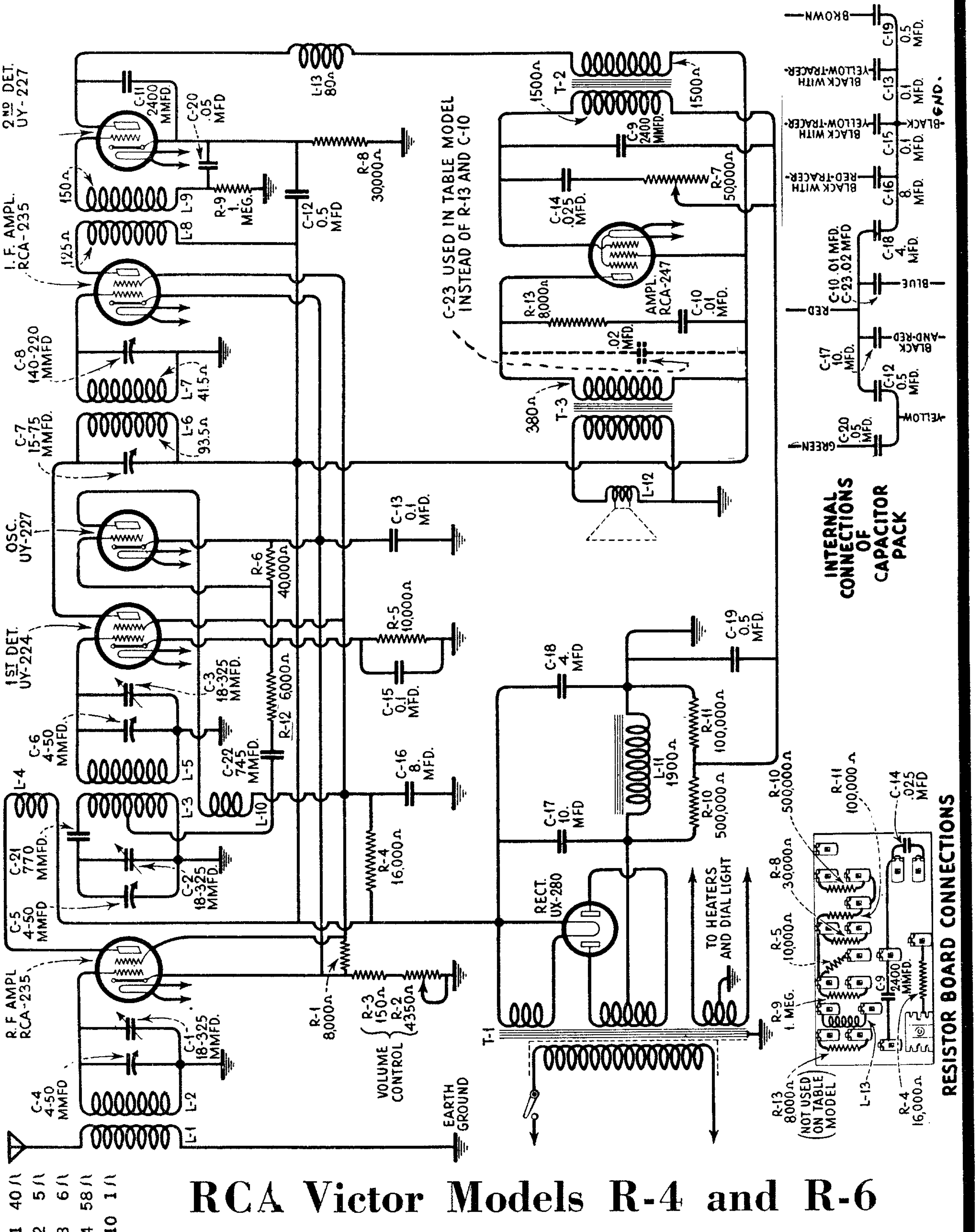
(1) Excessive hum or distortion is sometimes caused by pilot lamp socket short-circuiting to chassis.

RCA Models: 4X, 4X3, 4X4

Schematic Circuit Diagram



Chassis Wiring Diagram, Radiotron, Coil, and Trimmer Locations

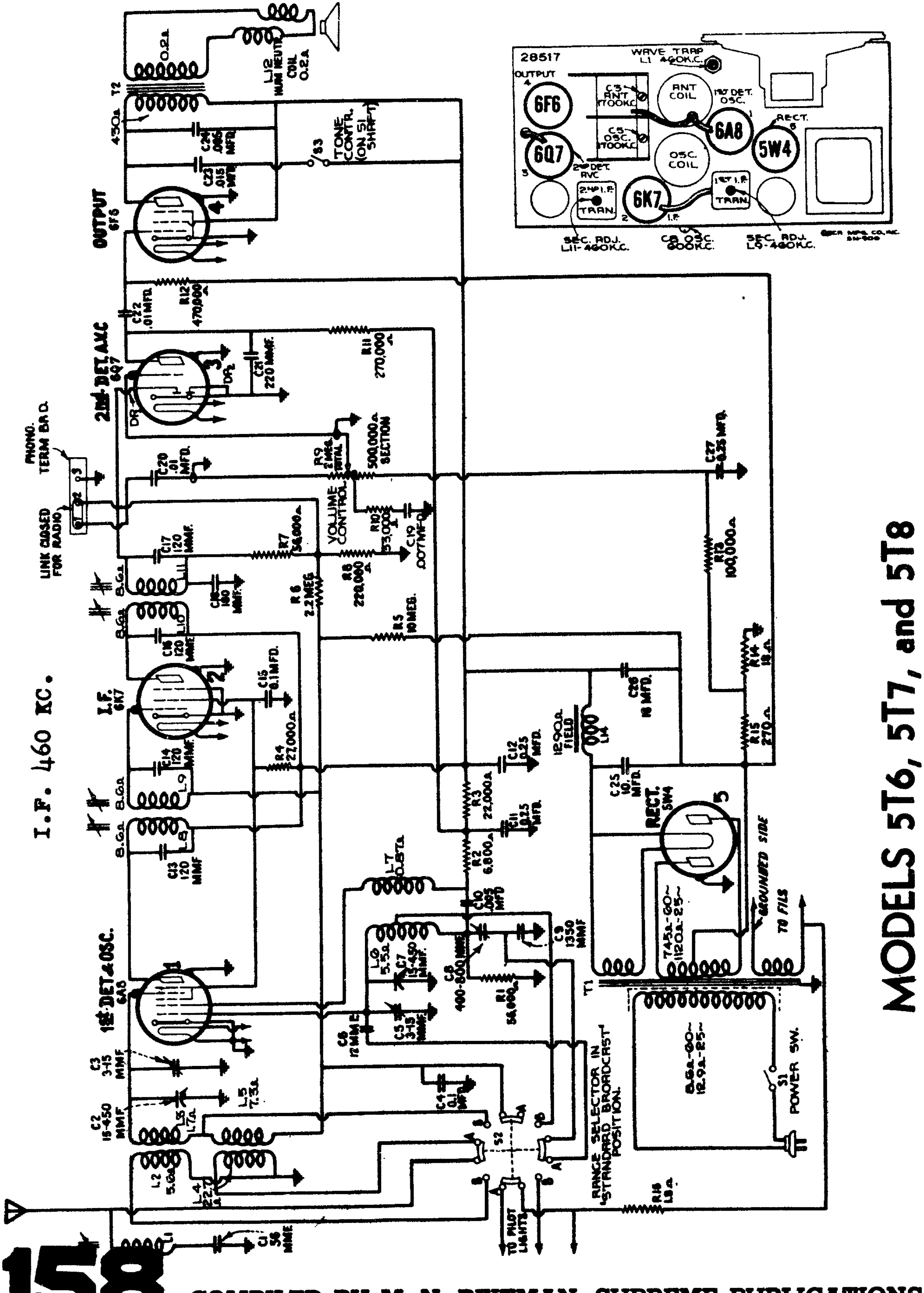


L-1	40Ω
L-2	5Ω
L-3	6Ω
L-4	58Ω
L-10	1Ω

RCA Victor Models R-4 and R-6

MODELS 5T6, 5T7, and 5T8

I.F. 460 KC.



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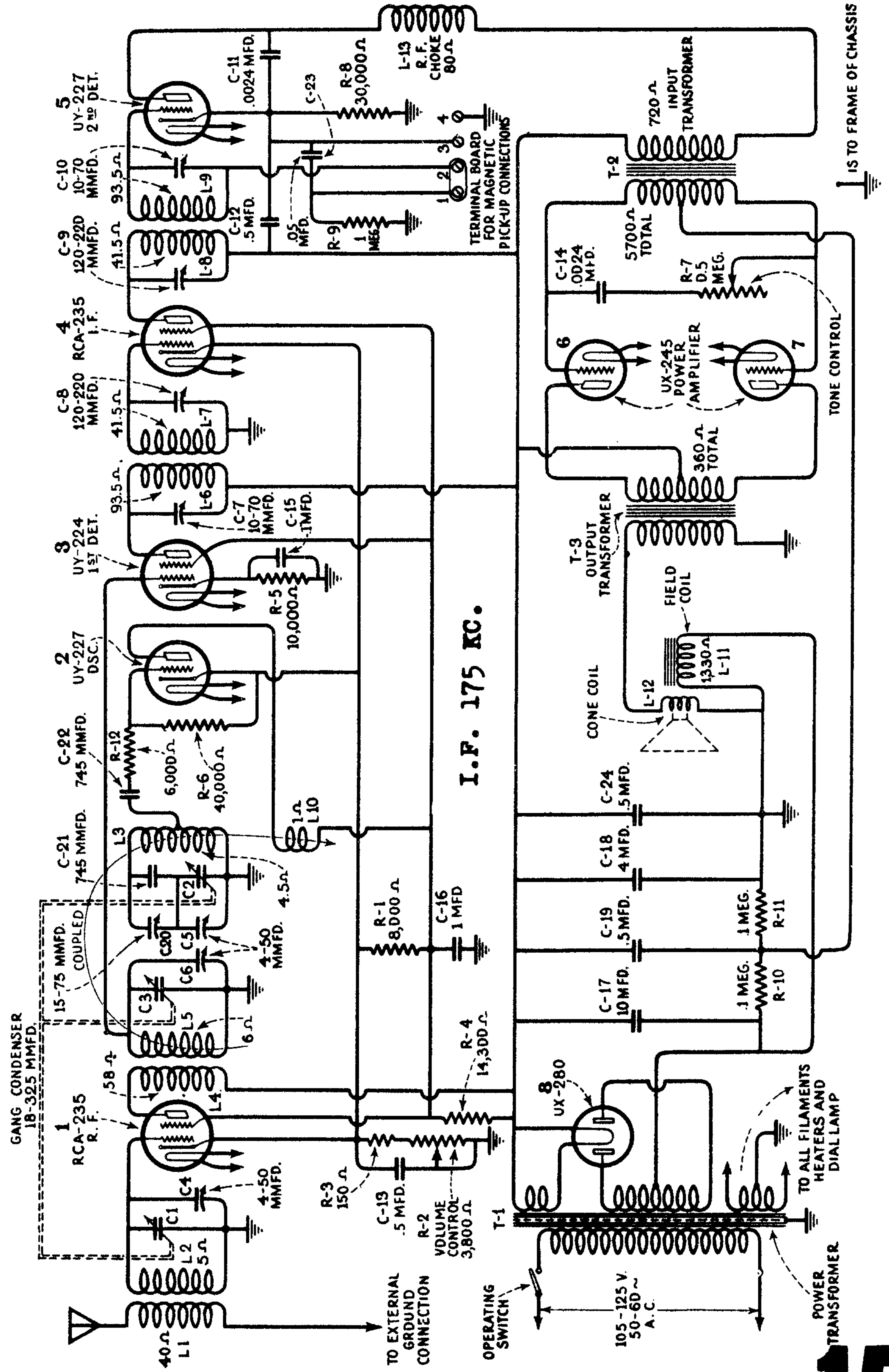
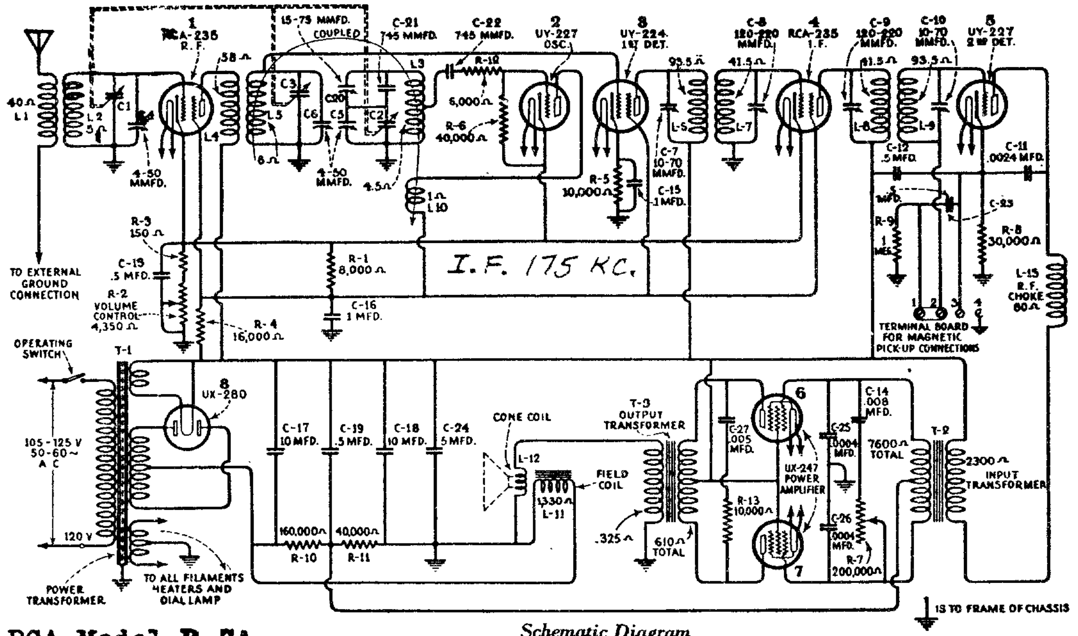

5
UY-227
2ND DET.
C-11
.0024 MFD.
R-8
30,000 Ω
L-13
R.F.
CHOKE
80 Ω
C-23
4
3
2
1
TERMINAL BOARD
FOR MAGNETIC
PICK-UP CONNECTIONS
R-9
1 MEG.
.05 MFD.
C-12
.5 MFD.
C-10
10-70
MMFD.
93.5 Ω
L-9
C-9
120-220
MMFD.
41.5 Ω
L-8
720 Ω
INPUT
TRANSFORMER
T-2
5700 Ω
TOTAL
C-14
.0024
MFD.
R-7
0.5
MEG.
IS TO FRAME OF CHASSIS
4
RCA-235
I.F.
C-8
120-220
MMFD.
41.5 Ω
L-7
6
7
UX-245
POWER
AMPLIFIER
TONE CONTROL
360 Ω
TOTAL
93.5 Ω
L-6
C-7
10-70
MMFD.
C-15
.1 MFD.
3
UY-224
1ST DET.
R-5
10,000 Ω
T-3
OUTPUT
TRANSFORMER
FIELD
COIL
1330 Ω
L-11
L-12
CONE COIL
2
UY-227
OSC.
I.F. 175 KC.
C-22
745 MMFD.
R-12
6,000 Ω
R-6
40,000 Ω
1 Ω
L10
C-21
745 MMFD.
L3
C2
4.5 Ω
C20
C5
4-50
MMFD.
C6
C3
L5
6 Ω
15-75 MMFD.
COUPLED
R-1
8,000 Ω
C-16
1 MFD
C-24
.5 MFD.
C-18
4 MFD.
C-19
.5 MFD.
R-11
1 MEG.
C-17
10 MFD.
R-10
1 MEG.
GANG CONDENSER
18-325 MMFD.
58 Ω
L4
1
RCA-235
R.F.
R-4
14,300 Ω
8
UX-280
C4
4-50
MMFD.
C1
L2
5 Ω
R-3
150 Ω
C-13
.5 MFD.
R-2
VOLUME
CONTROL
3,800 Ω
T-1
TO ALL FILAMENTS
HEATERS AND
DIAL LAMP
POWER
TRANSFORMER
105-125 V.
50-60~
A.C.
OPERATING
SWITCH
TO EXTERNAL
GROUND
CONNECTION
40 Ω
L1

R.C.A. R-7, R-9

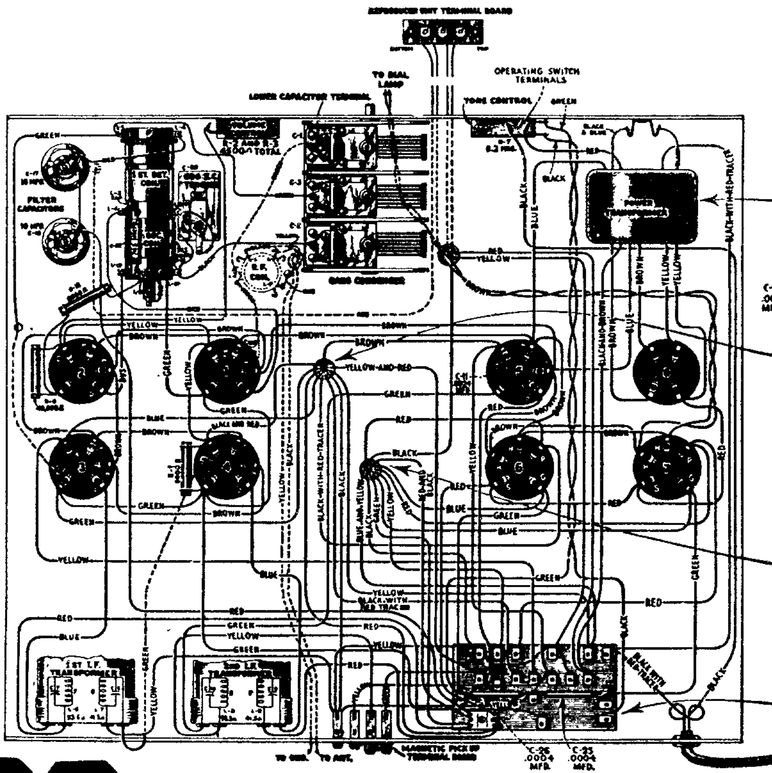


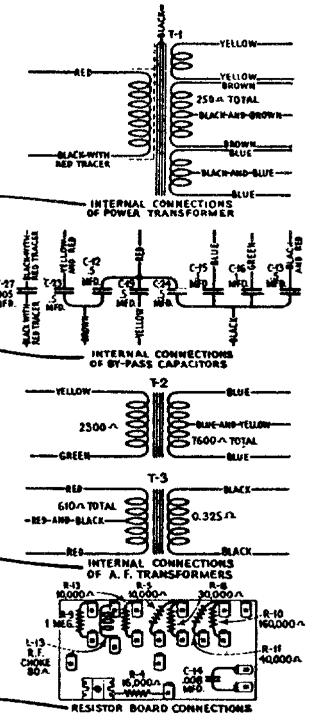
RCA Model R-7A

Schematic Diagram

SOCKET VOLTAGES—110 VOLT A. C. LINE

Radiotron No.	Cathode to Heater Volts D. C.	Cathode or Filament to Control Grid Volts D. C.	Cathode to Screen Grid Volts D. C.	Cathode or Filament to Plate Volts D.C.	Plate Current M. A.	Heater or Filament Volts A. C.
VOLUME CONTROL AT MINIMUM						
1	38	35	50	200	.0	2.2
2	38	0	—	50	3.5	2.2
3	7	6	80	235	0.5	2.2
4	38	35	50	200	.0	2.2
5	22	8	—	210	0.7	2.2
6	—	12	225	220	30	2.2
7	- -	12	225	220	30	2.2
VOLUME CONTROL AT MAXIMUM						
1	2.0	2.5	60	235	3.5	2.2
2	2.0	.0	—	50	4.5	2.2
3	4.0	4.0	55	230	0.5	2.2
4	2.0	2.5	58	235	3.5	2.2
5	22	8	—	210	0.7	2.2
6	—	12	225	220	30	2.2
7	- -	12	225	220	30	2.2





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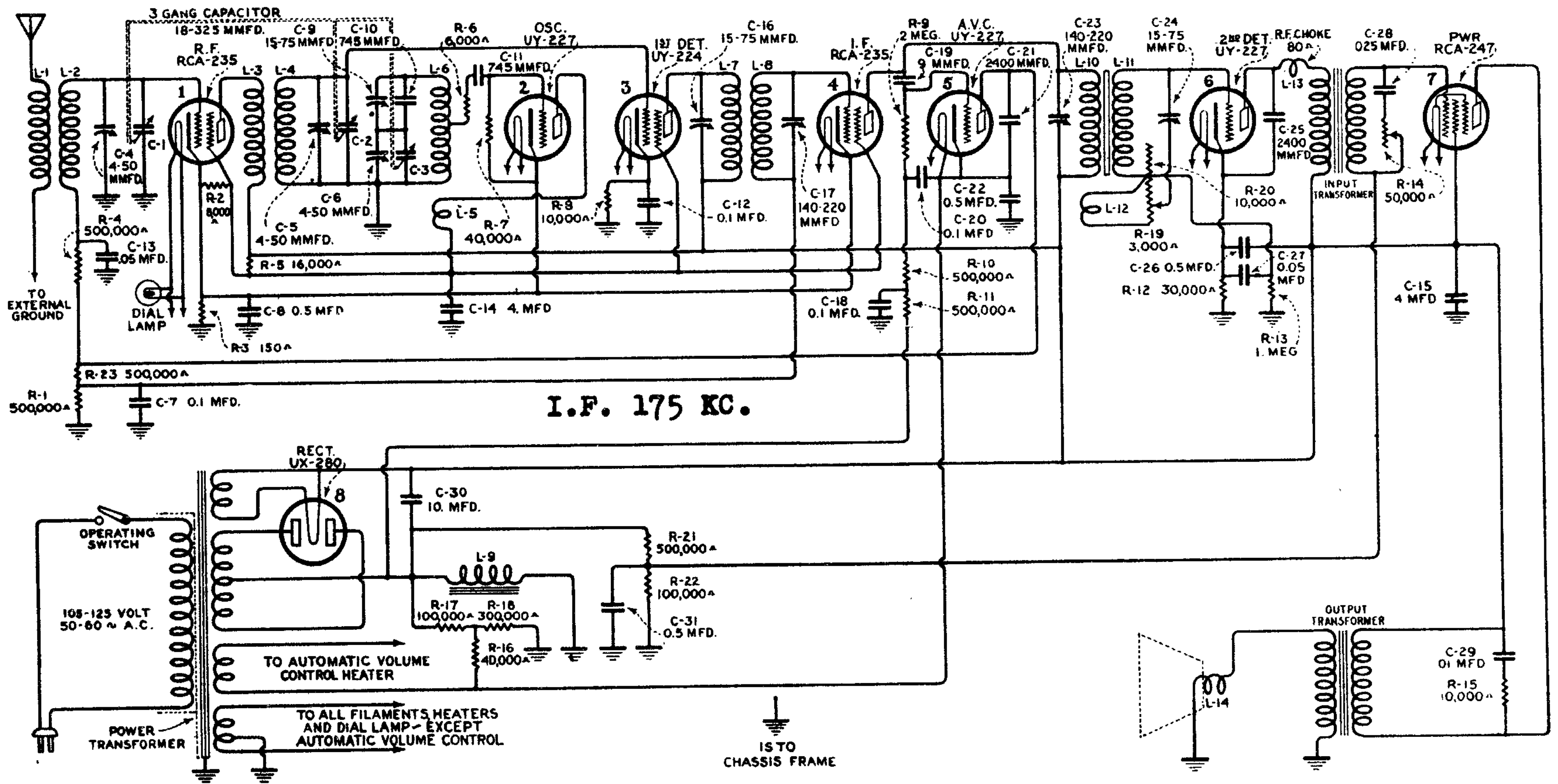
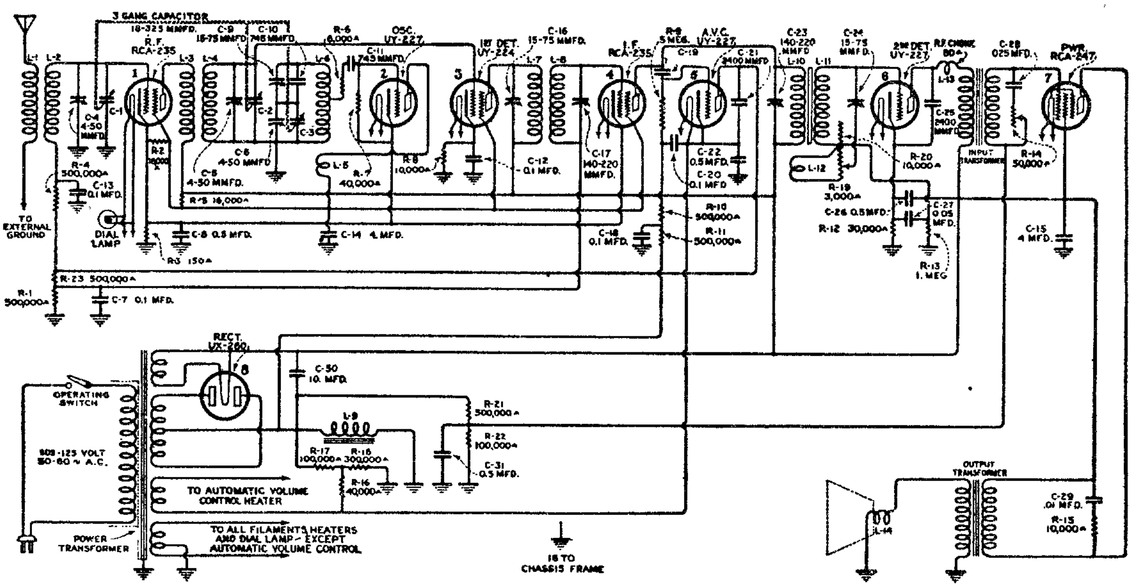
RCA Models R-8, R-12 AC



Radiotron No.	Cathode to Heater Volts, D. C.	Cathode or Filament to Control Grid Volts, D. C.	Cathode or Filament to Screen Grid Volts, D. C.	Cathode or Filament to Plate Volts, D. C.	Plate Current M. A.	Screen Current M. A.	Heater or Filament Volts, A. C.
1. R. F.	4.0	0.5	70	260	4.0	0.5	2.66
2. Osc.	4.0	0	—	65	6.0		2.66
3. 1st Det.	7.0	6.0	70	260	0.75	0.1	2.66
4. I. F.	4.0	4.0	70	260	4.0	0.5	2.66
5. 2nd Det.	28.0	10.0	—	250	1.0	—	2.66
6. A. V. C.	0	0	—	25	0	-	2.66
7. Power	---	10.0	290	280	35.0	-	2.66



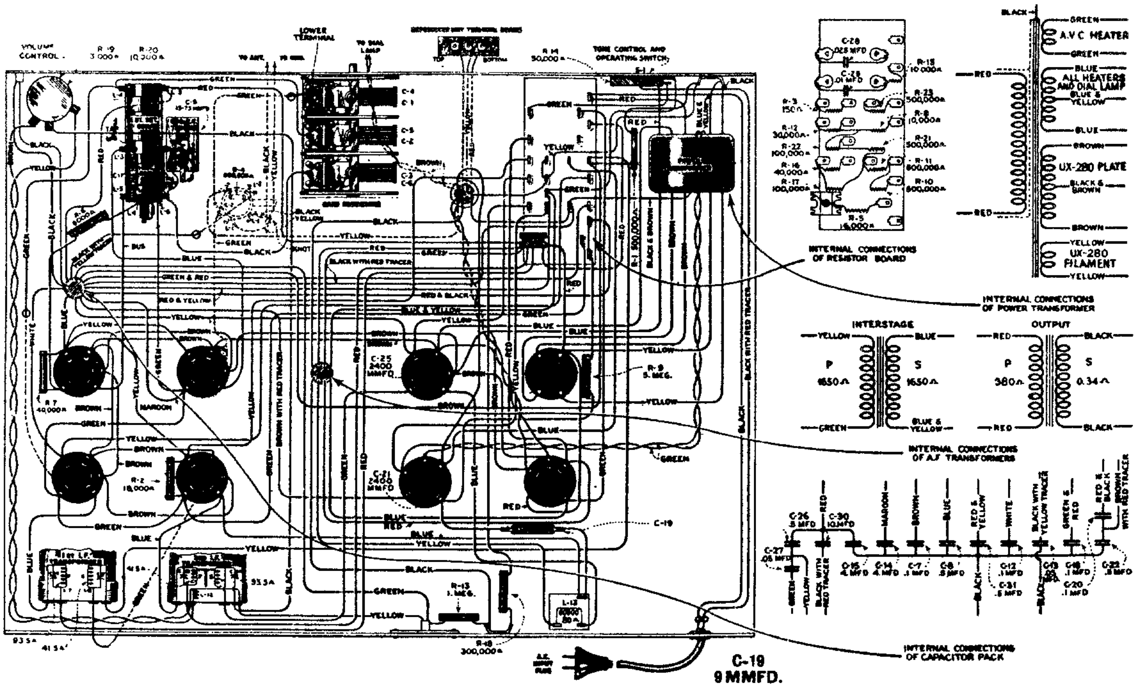
RCA Victor

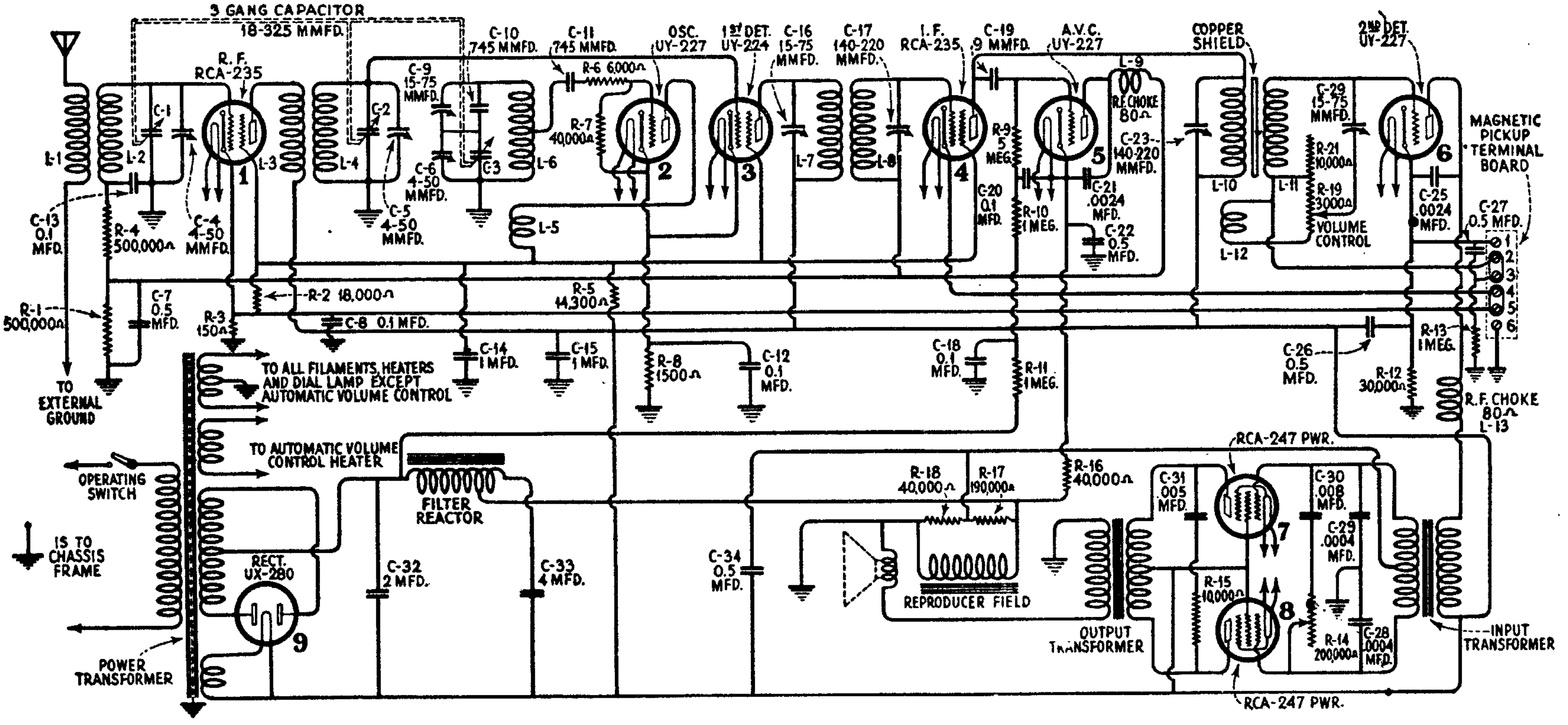
Schematic Wiring Diagram R-10

I.F. 175 KC.

Radiotron No.	Cathode to Heater Volts, D. C.	Cathode or Filament to Control Grid Volts, D. C.	Cathode or Filament to Screen Grid Volts, D. C.	Cathode or Filament to Plate Volts, D. C.	Plate Current M. A.	Screen Current M. A.	Heater or Filament Volts, A. C.
1	2	*0.1	75	210	5.0	0.5	2.2
2	8	0	—	60	5.0	—	2.2
3	7	7.0	70	205	0.5	0.1	2.2
4	2	*0.1	75	210	5.0	0.5	2.2
5	0	0	—	30	0	—	2.2
6	20	*8.0	—	185	0.5	—	2.2
7	—	10	210	210	25	—	2.2

*Not true reading due to resistance in circuit.





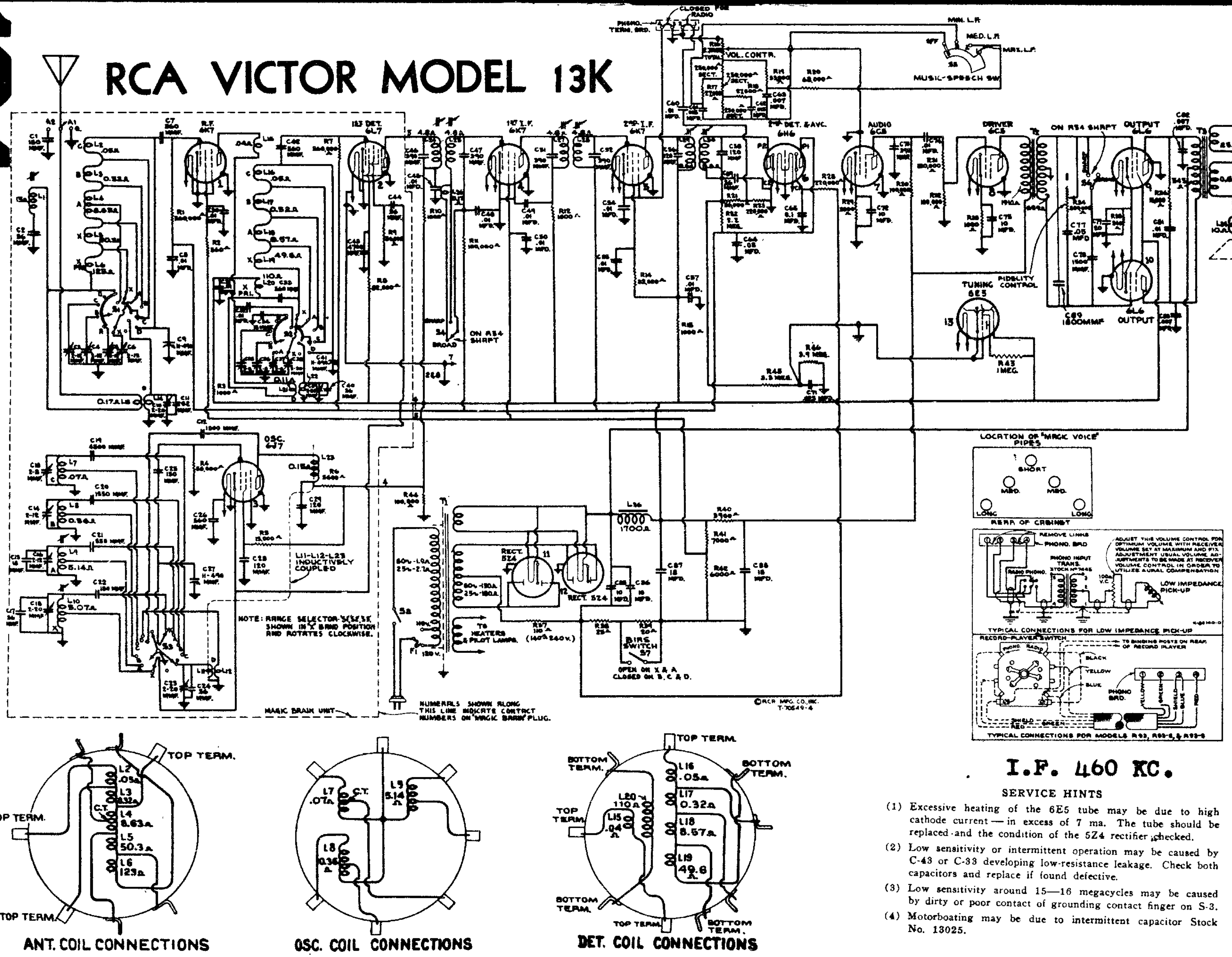
R.C.A. *Schematic Circuit Diagram of Model R-11*

I.F. 175 KC.

Radiotron No.	Cathode to Heater Volts D. C.	Cathode or Filament to Control Grid Volts, D. C.	Cathode or Filament to Screen Grid Volts, D. C.	Cathode or Filament to Plate Volts, D. C.	Plate Current M. A.	Screen Current M. A.	Heater or Filament Volts, A. C.
1	2	*0.1	75	205	5.0	0.5	2.2
2	8	0	—	60	5.0	—	2.2
3	7	7.0	70	200	0.5	0.1	2.2
4	2	*0.1	75	205	5.0	0.5	2.2
5	0	0	—	25	0	—	2.2
6	20	*8.0	—	180	0.5	—	2.2
7	—	10	210	205	25	—	2.2
8	—	10	210	205	25	—	2.2

* Not true reading due to resistance in circuit.

RCA VICTOR MODEL 13K



I.F. 460 KC.

SERVICE HINTS

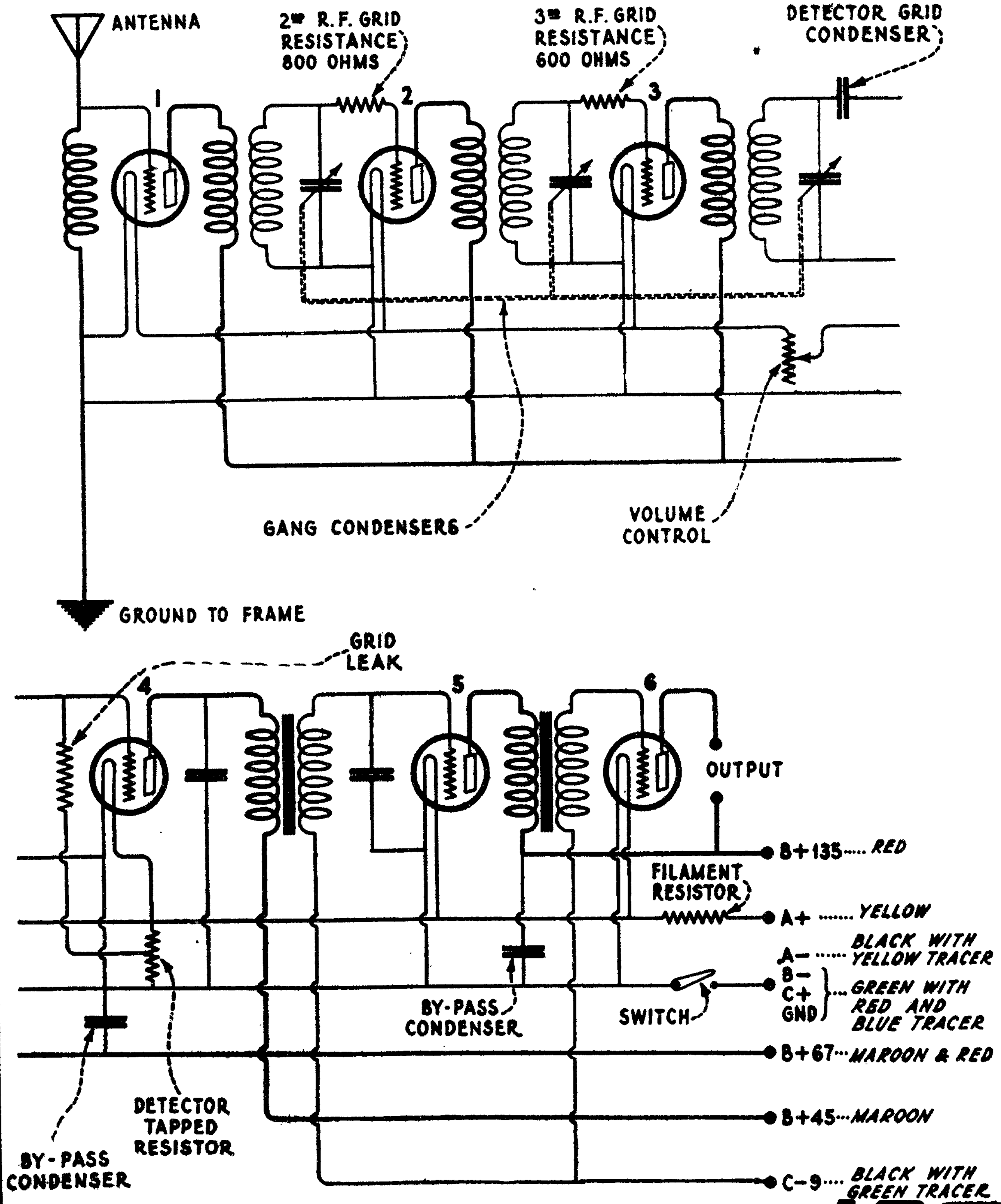
(1) Excessive heating of the 6E5 tube may be due to high cathode current — in excess of 7 ma. The tube should be replaced and the condition of the 5Z4 rectifier checked.

(2) Low sensitivity or intermittent operation may be caused by C-43 or C-33 developing low-resistance leakage. Check both capacitors and replace if found defective.

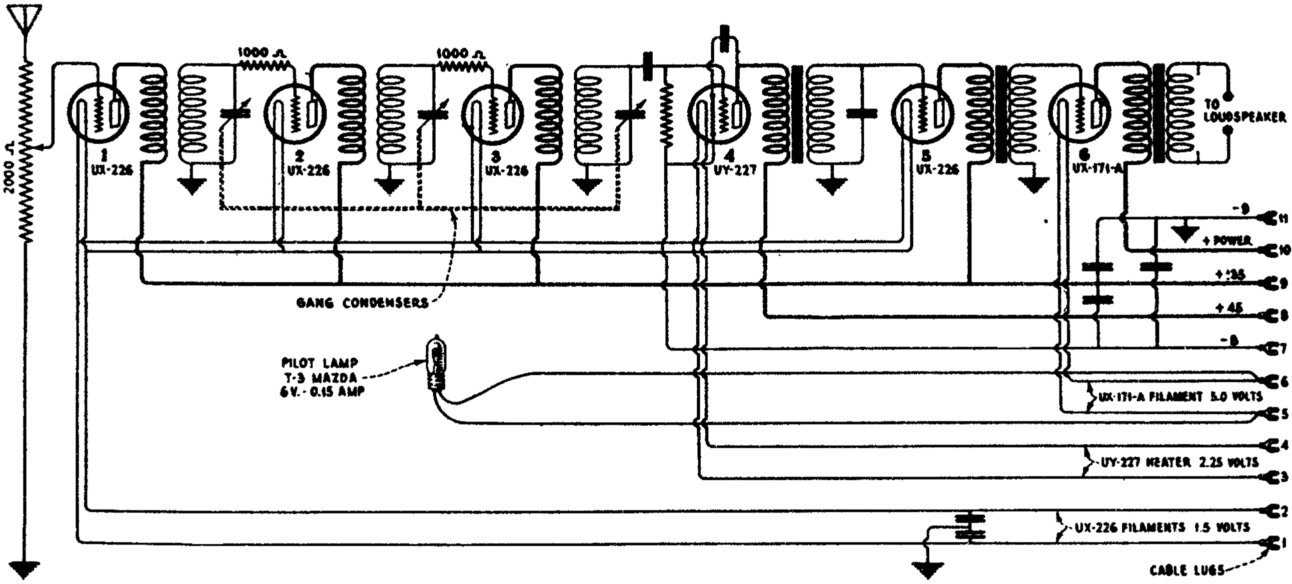
(3) Low sensitivity around 15—16 megacycles may be caused by dirty or poor contact of grounding contact finger on S-3.

(4) Motorboating may be due to intermittent capacitor Stock No. 13025.

RCA RADIOLA 16

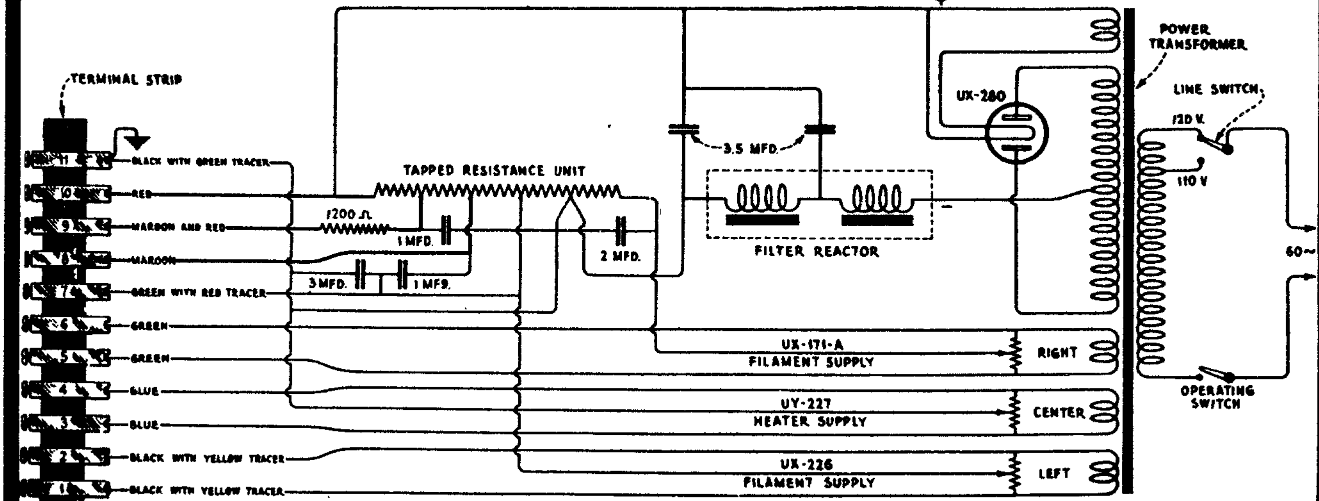


RCA RADIOLA 17



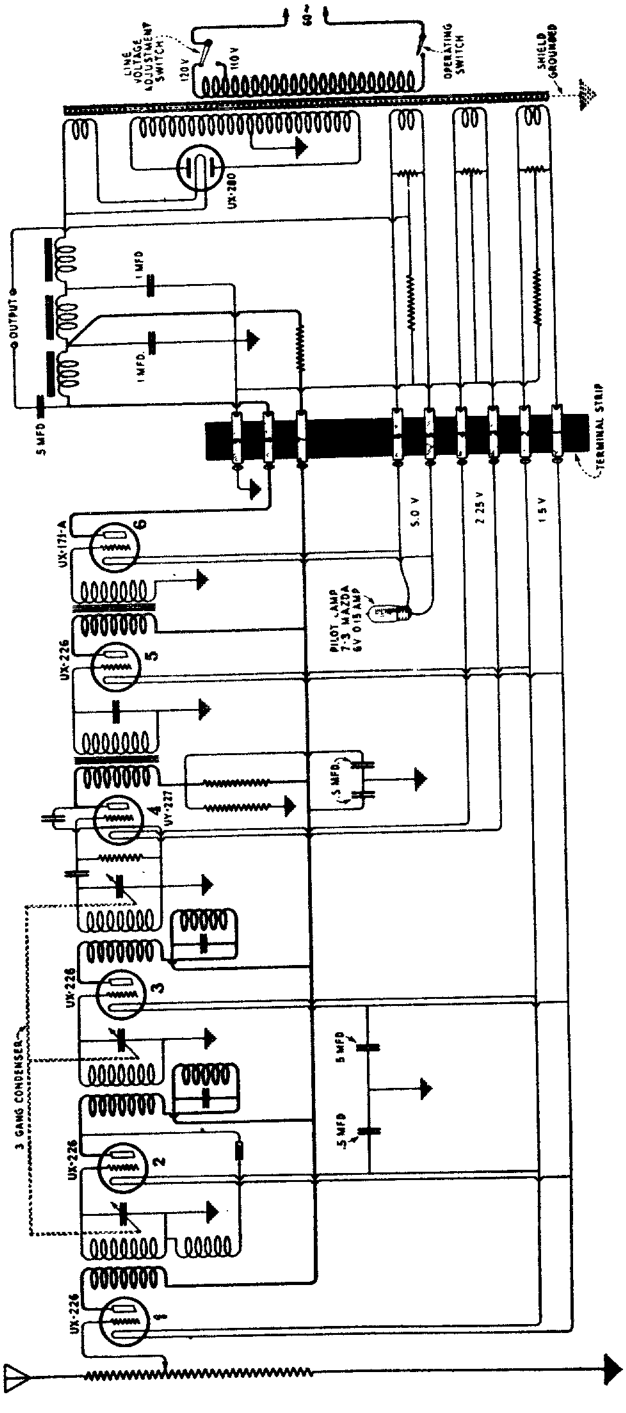
Schematic circuit diagram of receiver assembly.

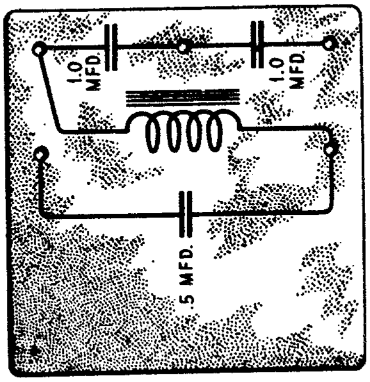
Indication	*Cause*	*Remedy*
No signals	Defective operating switch	Repair or replace switch
	Loose volume control arm	Tighten volume control arm
	Defective power cable	Replace power cable
	Defective R.F. transformer	Replace R.F. transformer assembly
	Defective A.F. transformer	Replace A.F. transformer assembly
	Defective By-pass condenser	Replace By-pass condenser
	Defective socket power unit	Check socket power unit by means of continuity test and make any repairs or replacements necessary



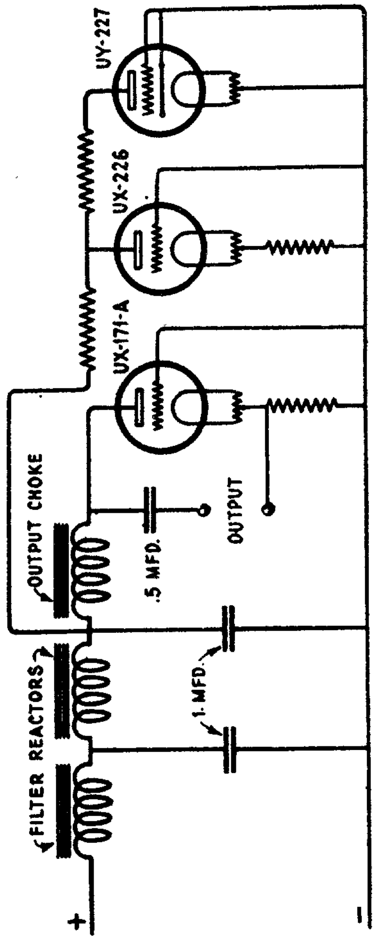
RCA RADIOLA 18

(105-125 Volts, 50-60 Cycle A.C.)



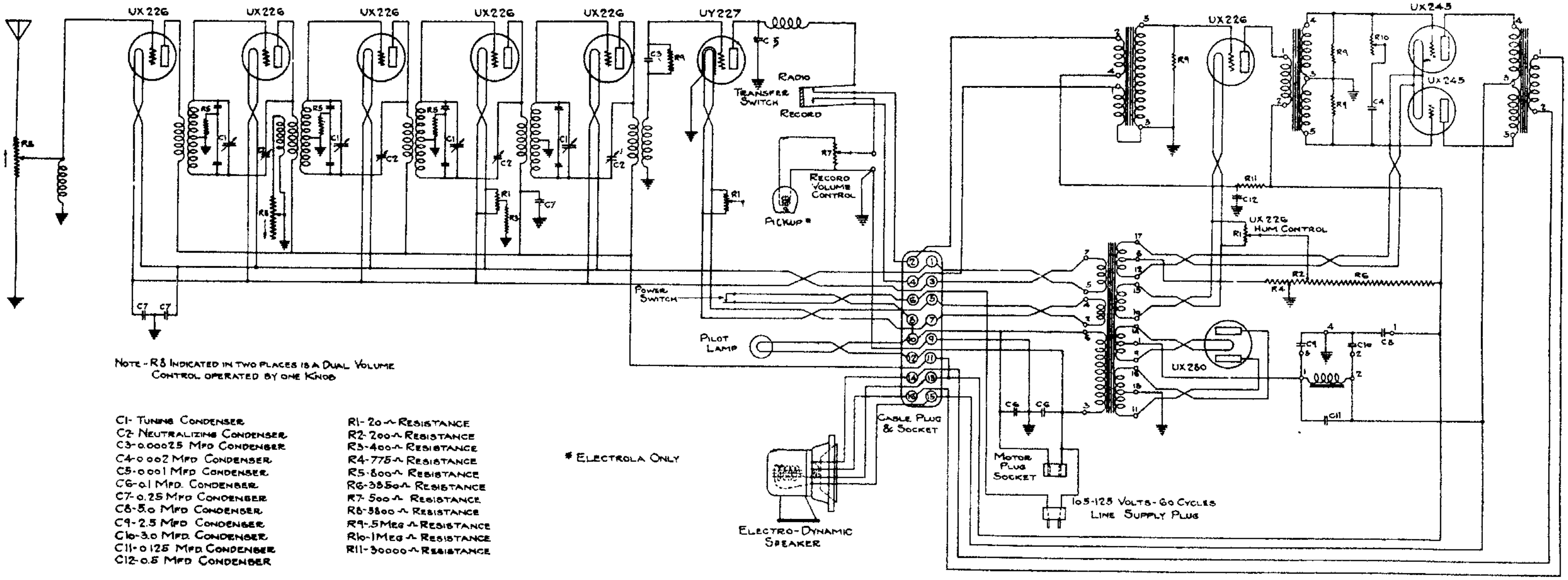


Internal connections of condensers.



Schematic circuit illustrating method of obtaining grid and plate voltages.

R-32, R-52, RE-45 and RE-75



Note - R8 Indicated in two places is a Dual Volume Control operated by one Knob

C1- Tuning Condenser
C2- Neutralizing Condenser
C3- 0.00025 Mfd Condenser
C4- 0.002 Mfd Condenser
C5- 0.001 Mfd Condenser
C6- 0.1 Mfd. Condenser
C7- 0.25 Mfd Condenser
C8- 5.0 Mfd Condenser
C9- 2.5 Mfd Condenser
C10- 3.0 Mfd. Condenser
C11- 0.125 Mfd. Condenser
C12- 0.5 Mfd Condenser

R1- 20 Ω Resistance
R2- 200 Ω Resistance
R3- 400 Ω Resistance
R4- 775 Ω Resistance
R5- 800 Ω Resistance
R6- 3850 Ω Resistance
R7- 500 Ω Resistance
R8- 5800 Ω Resistance
R9- .5 Meg Ω Resistance
R10- 1 Meg Ω Resistance
R11- 30000 Ω Resistance

Schematic Wiring Diagram Victor Radio and Victor Radio with Electrola

Model R-32, R-52, RE-45, RE-75

GENERAL TESTS

1. EXCESSIVE HUM—This condition can be caused by:

a. Improperly adjusted or faulty hum controls. See subject 4, under Installation.
b. Defective UX-280 or UY-227.
c. Wire or terminal grounded to the frame, or open circuit in any of the various ground connections.
d. Shorted condenser, 10, Fig. 1, across UX-226 filament supply.
e. Open or shorted center tap resistor, 43, Fig. 1, across UX-226 filament supply.
f. Shorted condenser, 64, Fig. 3, across power line in power-amplifier unit.
g. Shorted condenser in condenser bank, 56, Fig. 2, of power-amplifier unit.

2. HOWL—Microphonic howl can be traced to:

a. Defective Radiotron, particularly in the detector or audio stages.
b. Improper neutralization. See subject 1 under Special Adjustments below.
c. Speaker not felt insulated from baffle. Remove speaker and arrange felt properly.
d. Open condenser, 15, Fig. 1.

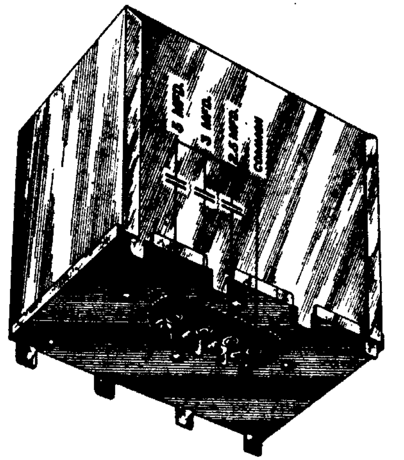
e. Loose metal parts such as shielding, screws, etc., or improperly centered cone may set up a howl or mechanical rattle. See subject 2 under Special Adjustments for method of centering cone.

3. DISTORTED REPRODUCTION—Distortion may be caused by any of the following:

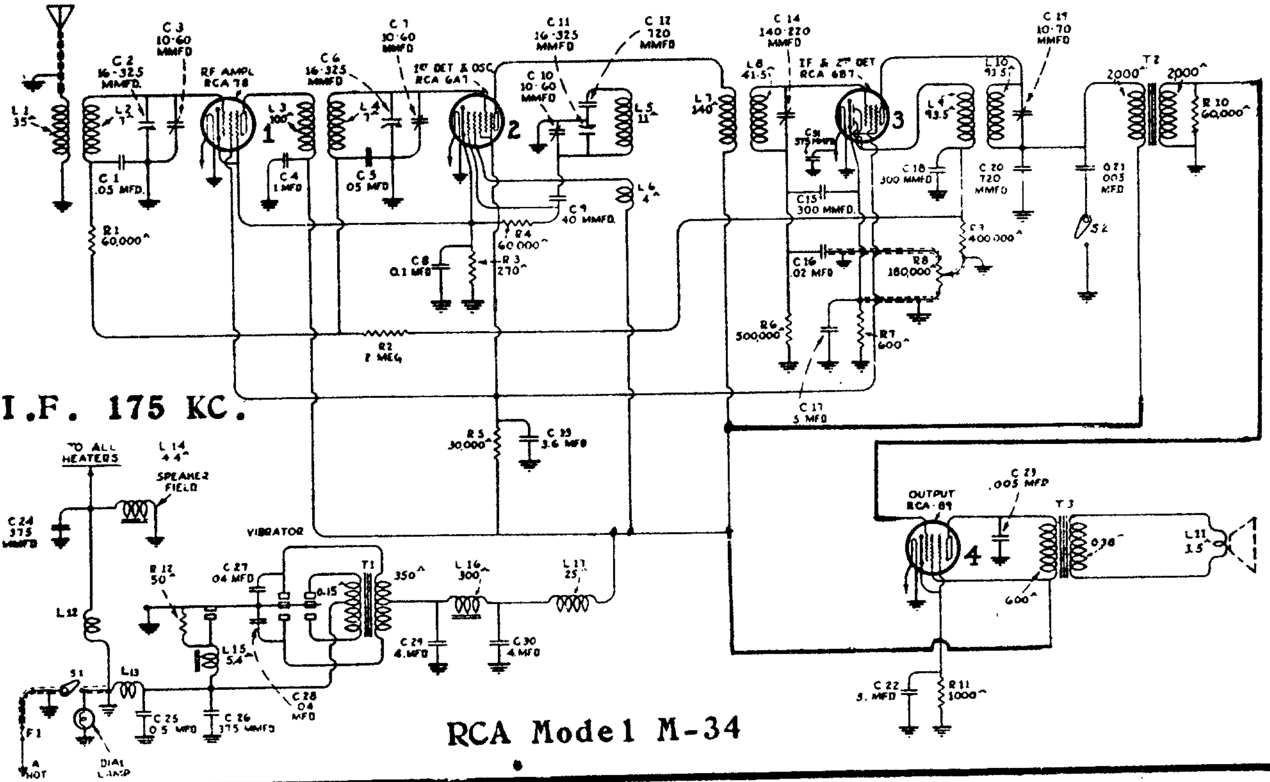
a. Low emission Radiotron, particularly in the detector or in the power supply unit. For best reproduction the plate currents of the two UX-245 should balance within 2 milliamperes.
b. Operation with volume control advanced too far on powerful local stations, causing overloading of the detector.
c. Incorrect setting of the tone control in the base of the power-amplifier. See subject 5, under Installation.
d. Improper neutralization. See subject 1, under Special Adjustments.
e. Cone in speaker unit improperly centered. See subject 2 under Special Adjustments.

4. NOISY REPRODUCTION—Station carrier noise, static, and power line disturbances should not be confused with noise which is set up within the receiver. This latter condition may be caused by any one of the following:

a. *Volume Control.* Dirt or corrosion on the resistance wire or contact arms of the volume control will produce noise when the control is operated. This condition can usually be corrected by rubbing the parts lightly with very fine sandpaper and then cleaning with gasoline.
b. *Shorted Tuning Condenser.* If the plates of one or more of the tuning condensers are shorted, noise will be produced when the tuning lever is operated. If such a condition is found, the faulty condenser should be replaced.
c. *Intermittent short or open circuit* in any of the various soldered connections or in power switch.
d. *High resistance grid leak.* Any of the grid leaks which have developed an excessive high resistance will produce a "frying noise."
e. *Faulty power or audio transformer* will also produce this same type noise.



Internal Connections of Filter Condenser Bank

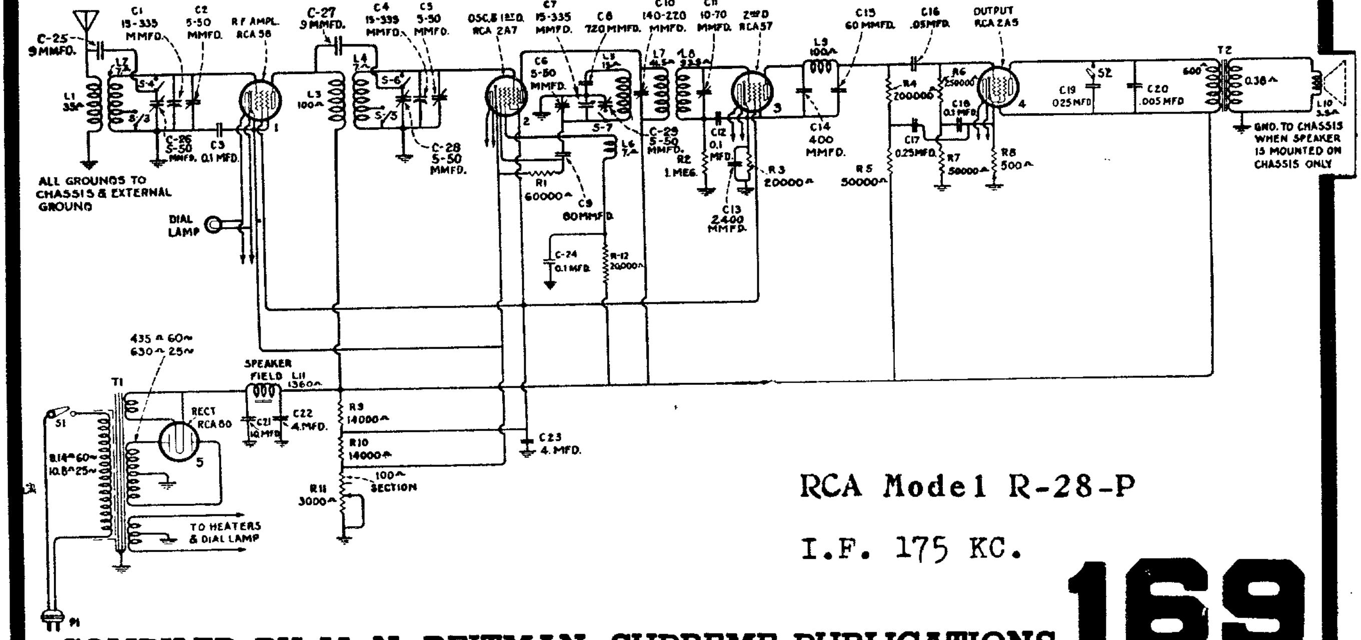


I.F. 175 KC.

RCA Model M-34

MAXIMUM VOLUME CONTROL SETTING—NO SIGNAL

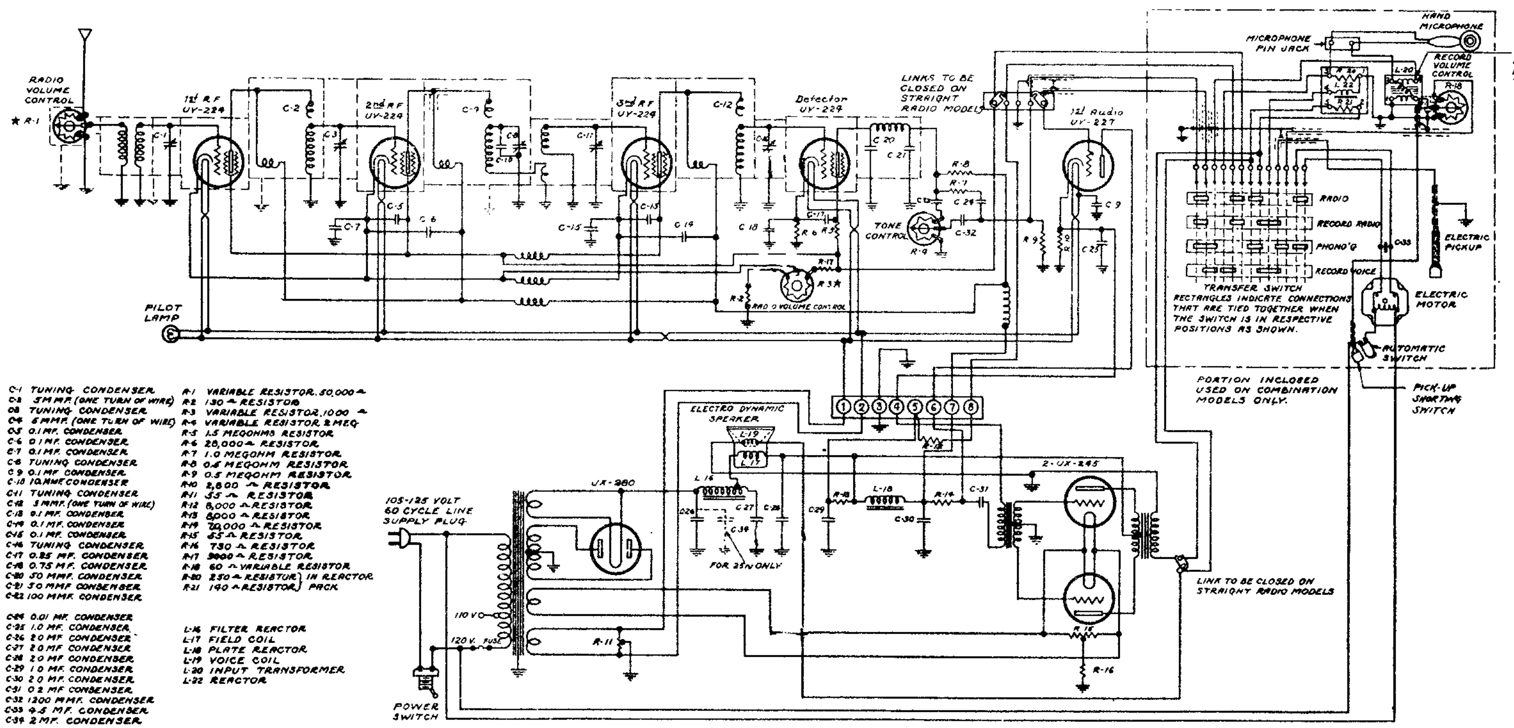
Radiotron No.	Cathode to Control Grid, Volts	Cathode to Screen Grid, Volts	Cathode to Plate, Volts	Plate Current, M. A.	Heater Volts
1. RCA-58 R. F. Amplifier	3.0	95	250	5.0	2.33
2. RCA-2A7 First Detector Oscillator	3.0	95	250	3.0	2.33
3. RCA-57 Second Detector	6.0	89	170	0.3	2.33
4. RCA-2A5 Power Amplifier	18.0	235	220	32.0	2.33
5. RCA-80 Rectifier	275 Volts PLATE TO PLATE—60 M. A. TOTAL				4.82
TOTAL CATHODE CURRENT—11 M. A.					



RCA Model R-28-P

I.F. 175 KC.

VICTOR MICRO-SYNCHRONOUS RADIO
R-35, R-39, RE-57



C-1	TUNING CONDENSER
C-2	5 MMF. (ONE TURN OF WIRE)
C-3	TUNING CONDENSER
C-4	5 MMF. (ONE TURN OF WIRE)
C-5	0.1 MF. CONDENSER
C-6	0.1 MF. CONDENSER
C-7	0.1 MF. CONDENSER
C-8	TUNING CONDENSER
C-9	0.1 MF. CONDENSER
C-10	10 MMF. CONDENSER
C-11	TUNING CONDENSER
C-12	5 MMF. (ONE TURN OF WIRE)
C-13	0.1 MF. CONDENSER
C-14	0.1 MF. CONDENSER
C-15	0.1 MF. CONDENSER
C-16	TUNING CONDENSER
C-17	0.25 MF. CONDENSER
C-18	0.75 MF. CONDENSER
C-20	50 MMF. CONDENSER
C-21	50 MMF. CONDENSER
C-22	100 MMF. CONDENSER
C-24	0.01 MF. CONDENSER
C-25	1.0 MF. CONDENSER
C-26	2.0 MF. CONDENSER
C-27	2.0 MF. CONDENSER
C-28	2.0 MF. CONDENSER
C-29	1.0 MF. CONDENSER
C-30	2.0 MF. CONDENSER
C-31	0.2 MF. CONDENSER
C-32	1200 MMF. CONDENSER
C-33	4.5 MF. CONDENSER
C-34	2 MF. CONDENSER

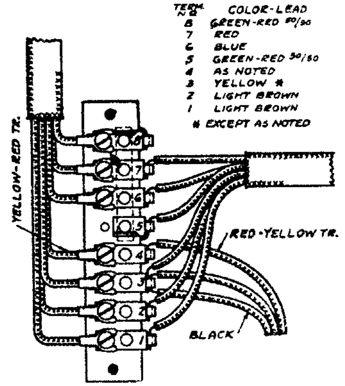
R-1	VARIABLE RESISTOR, 50,000 Ω
R-2	130 Ω RESISTOR
R-3	VARIABLE RESISTOR, 1000 Ω
R-4	VARIABLE RESISTOR, 2 MEG.
R-5	1.5 MEGOHMS RESISTOR
R-6	20,000 Ω RESISTOR
R-7	1.0 MEGOHM RESISTOR
R-8	0.5 MEGOHM RESISTOR
R-9	0.5 MEGOHM RESISTOR
R-10	2,800 Ω RESISTOR
R-11	55 Ω RESISTOR
R-12	8,000 Ω RESISTOR
R-13	8,000 Ω RESISTOR
R-14	70,000 Ω RESISTOR
R-15	55 Ω RESISTOR
R-16	730 Ω RESISTOR
R-17	3000 Ω RESISTOR
R-18	60 Ω VARIABLE RESISTOR
R-20	250 Ω RESISTOR } IN REACTOR PACK
R-21	140 Ω RESISTOR }
L-16	FILTER REACTOR
L-17	FIELD COIL
L-18	PLATE REACTOR
L-19	VOICE COIL
L-20	INPUT TRANSFORMER
L-22	REACTOR

★ R-1 AND R-3 ARE DUAL TYPE, BOTH OPERATED BY THE SAME KNOB

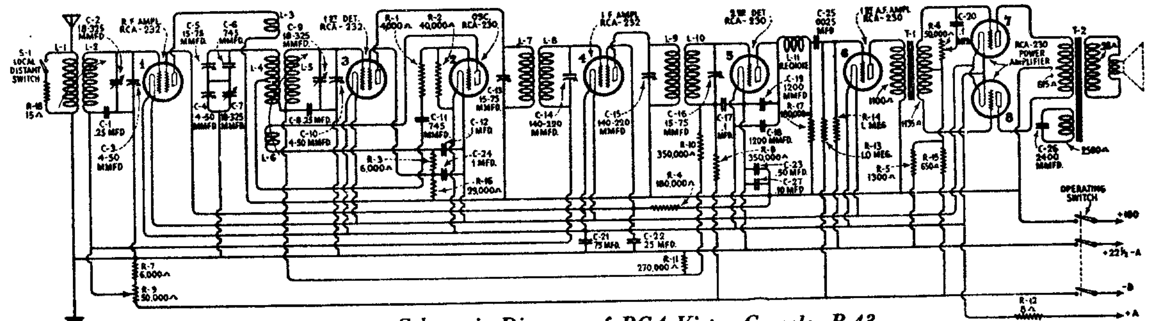
NOTE—Broken lines along wire indicate grounded shielding.

Schematic Wiring Diagram Victor Mico-Synchronous Radio, Models R-35, R-39, and RE-57.

TEST BETWEEN TERMINALS	PART	APPROXIMATE VOLTAGE (10 V SCALE)	APPROXIMATE RESISTANCE (OHMETER)
F and 7 of Terminal Board	Tapped Choke	8.4 Volts	300 Ohms
4 and 6 of Terminal Board	Speaker Field	7.2 Volts	1,500 Ohms
Brown-Grey Resistor	8000 Ohm Resistor	3.4 Volts	8,000 Ohms
Brown-Grey Resistor	8000 Ohm Resistor	3.4 Volts	8,000 Ohms
Green-Red Resistor	70,000 Ohm Resistor	.5 Volts	70,000 Ohms
7 and 8 of Condenser Bank	Plate Choke	4.0 Volts	6,000 Ohms
2 of Condenser Bank and 4 of Terminal Strip	Primary Interstage Transformer	6.4 Volts	2,000 Ohms
UX-245 Grids	Secondary Interstage Transformer	2.4 Volts	14,000 Ohms
UX-245 Grids to Chassis	One-half Secondary Interstage Transformer	4.4 Volts	5,500 Ohms
		3.6 Volts	7,500 Ohms
UX-245 Plates	Primary Output Transformer	8.4 Volts	330 Ohms
UX-245 Plates and No. 3 of Condenser Bank	One-half Primary Output Transformer	8.8 Volts	165 Ohms
Voice Coil	Speaker Voice Coil	9.0 Volts	0 Ohms
14 and 15 of Terminal Board	Primary Power Transformer	9.0 Volts	0 Ohms
P and P	High Voltage Secondary Output Transformer	8.4 Volts	340 Ohms
F and F	UX-280 Filament Secondary Output Transformer	9.0 Volts	0 Ohms



Top View of Amplifier Terminal Strip.



Schematic Diagram of RCA Victor Console, R-43

VOLUME CONTROL AT MINIMUM

Tube No.	Filament to Control Grid Volts	Filament to Screen Grid Volts	Filament to Plate Volts	Plate Current M. A.	Filament Volts
1	22	55	155	0	2.0
2	—	—	50	3.0	2.0
3	0.5	65	150	0.5	2.0
4	22	55	155	0	2.0
5	5.0	—	90	0	2.0
6	2.0	—	150	2.5	2.0
7	15.0	—	150	0.5	2.0
8	15.0		150	0.5	2.0

VOLUME CONTROL AT MAXIMUM

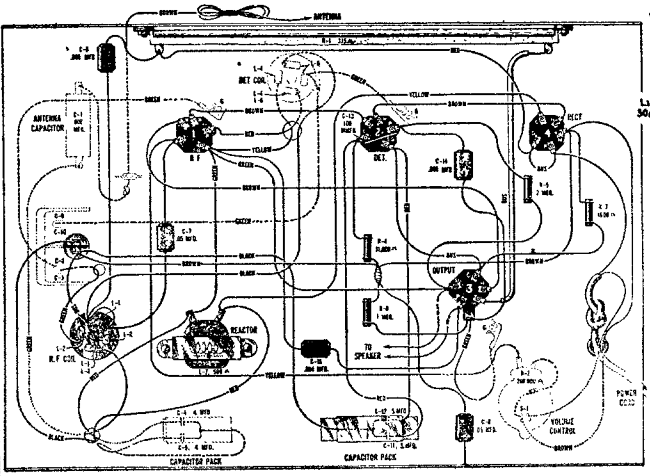
Tube No.	Filament to Control Grid Volts	Filament to Screen Grid Volts	Filament to Plate Volts	Plate Current M. A.	Filament Volts
1	1.5	45	150	2.5	2.0
2	—	—	50	3.0	2.0
3	0.5	60	150	0.5	2.0
4	1.5	45	150	2.5	2.0
5	5.0	—	90	0	2.0
6	2.0	—	150	2.5	2.0
7	15.0	—	150	0.5	2.0
8	15.0	—	150	0.5	2.0

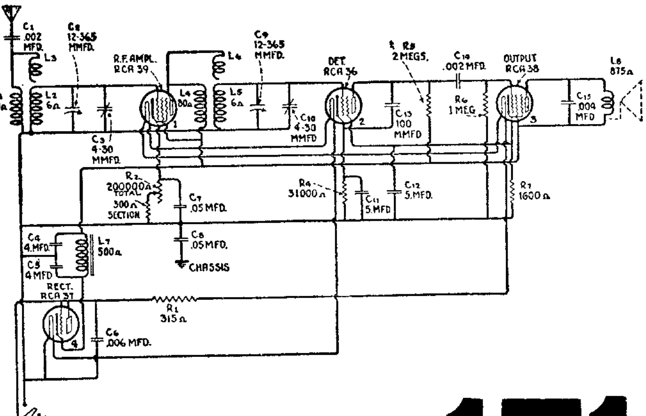
RCA Victor R-17-M

Radiotron No.	Cathode or Filament to Control Grid Volts	Cathode or Filament to Screen Grid Volts	Cathode or Filament to Plate Volts	Plate Current M. A.	Filament or Heater Volts
1. RCA-39 R. F.	3.0	105.0	105	7.0	6.0
2. RCA-36 Detector	*0.75	11.0	*60	0.025	6.0
3. RCA-38 Output	11.0	100.0	95	5.0	6.0
4. RCA-37 Rectifier	——	——	115	15.0	6.0

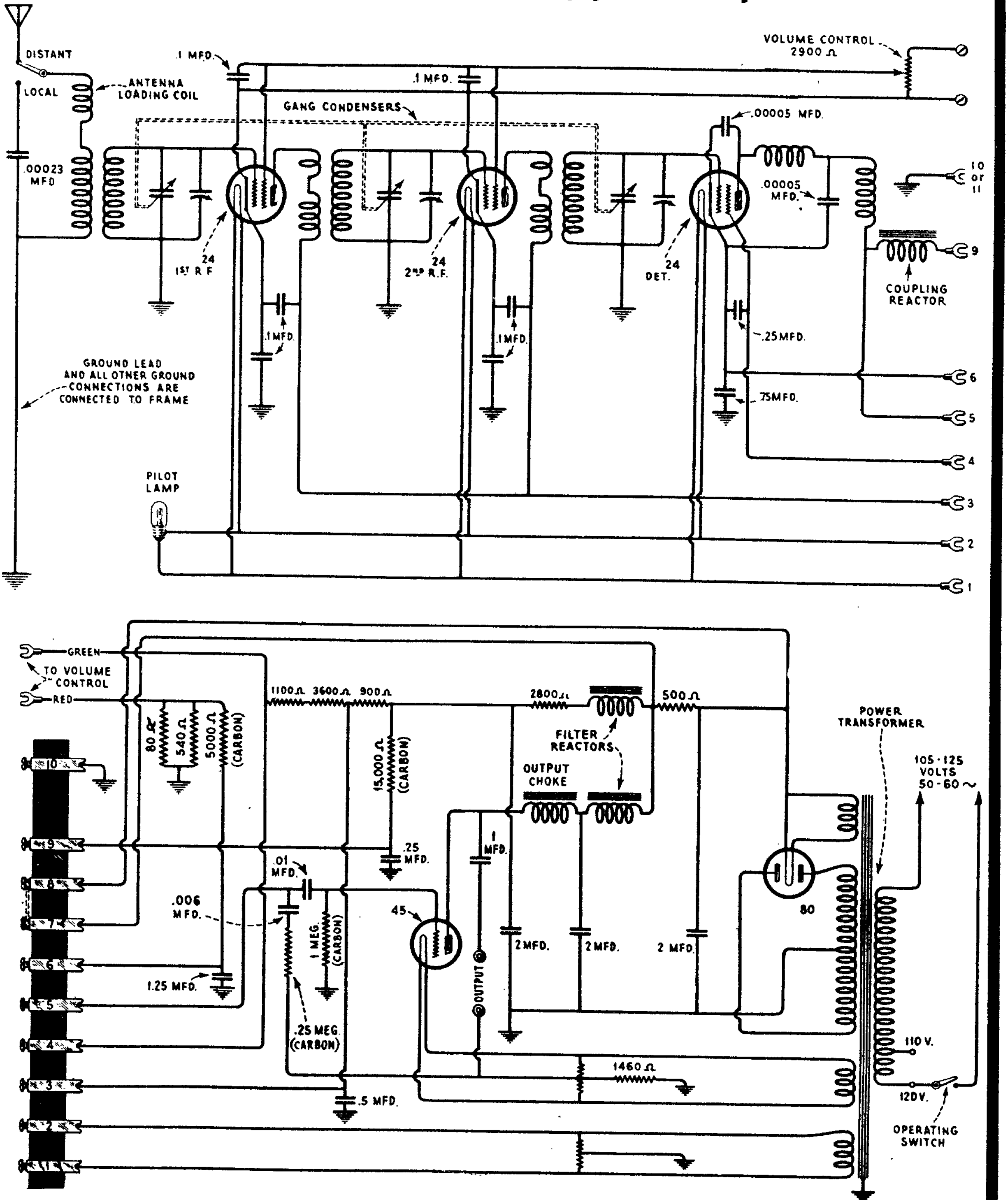
*Impossible to measure on ordinary voltmeter.

All Voltages on D. C. will be slightly lower

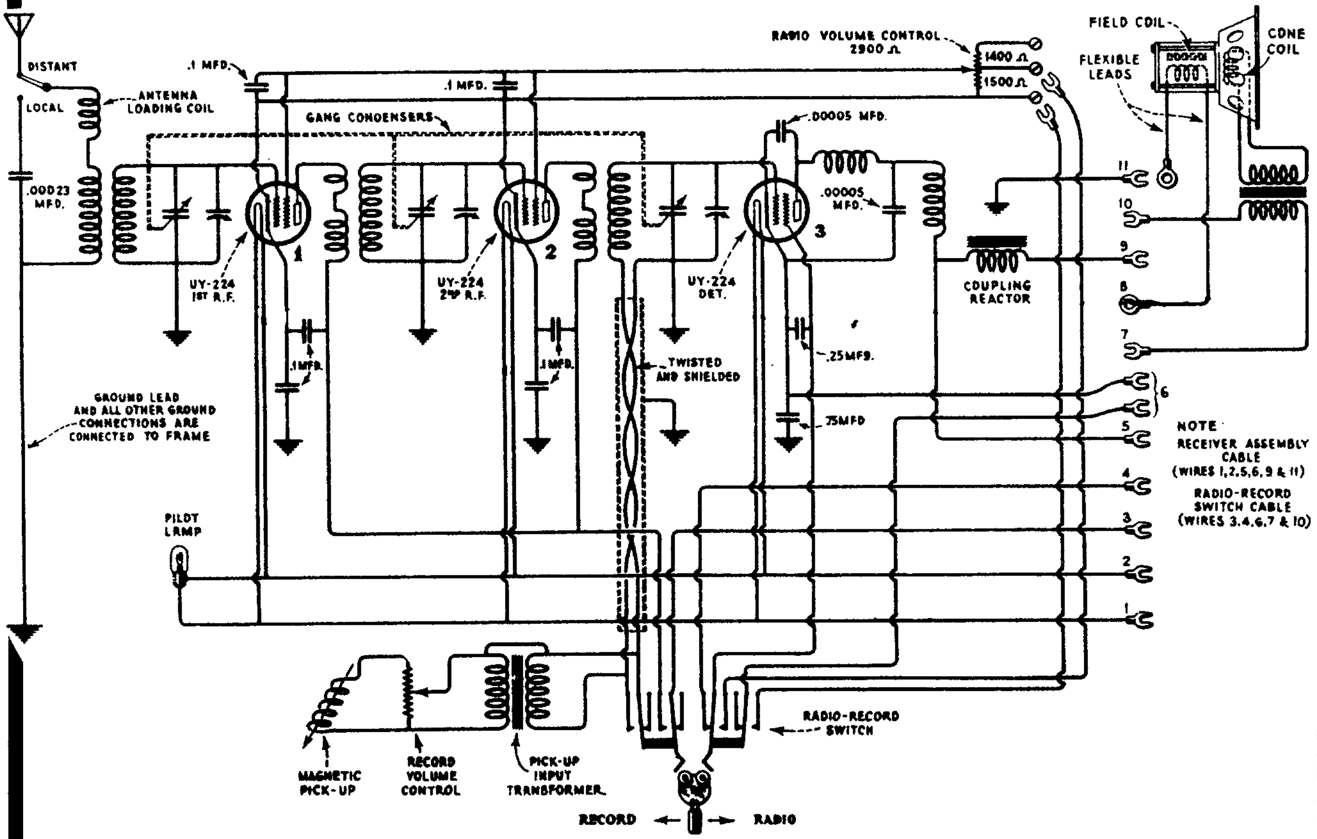




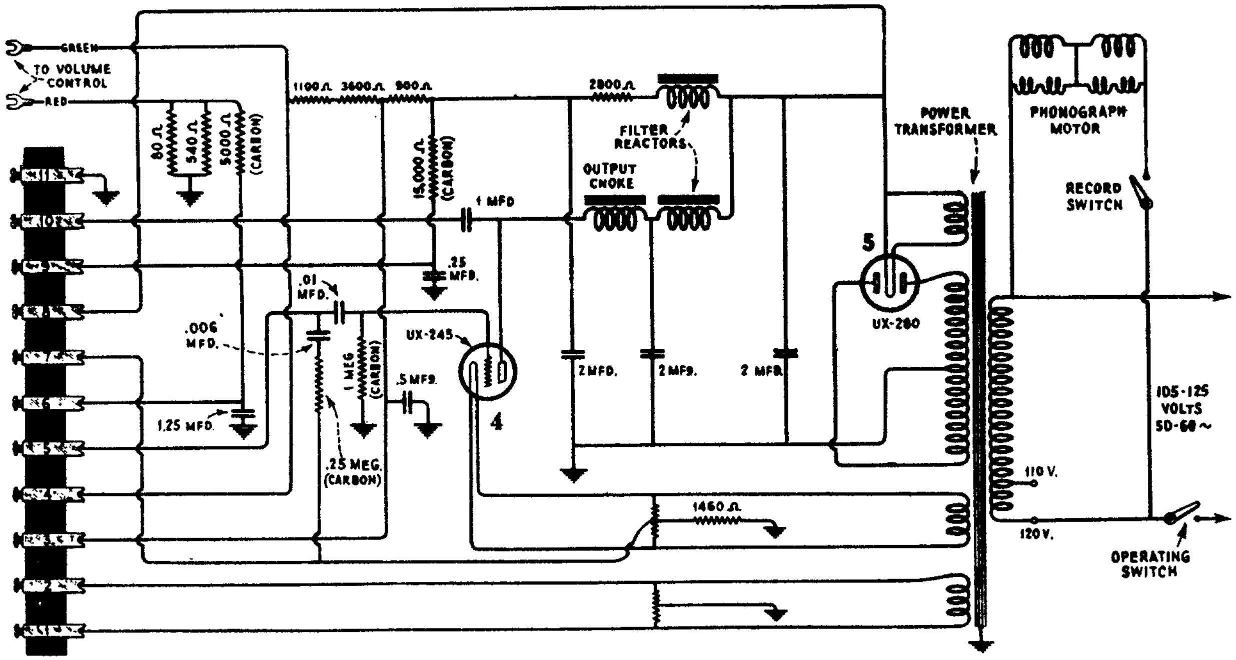
RCA RADIOLAS 44 and 46



Radiola 47

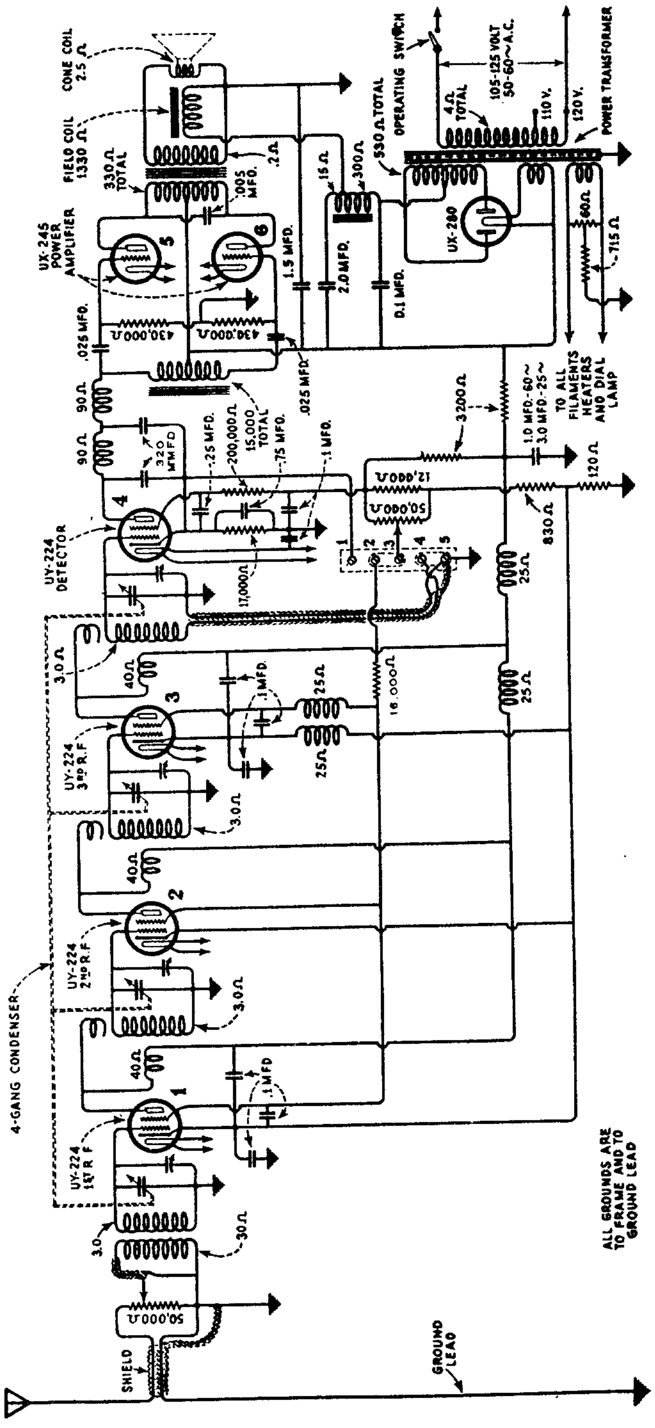


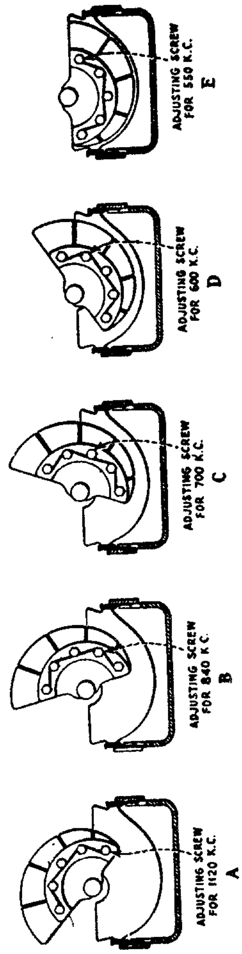
Schematic circuit diagram of receiver, phonograph pick-up and reproducer



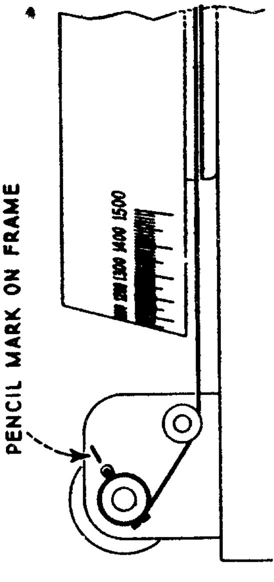
Schematic circuit diagram of socket power unit

RCA RADIOLA 48

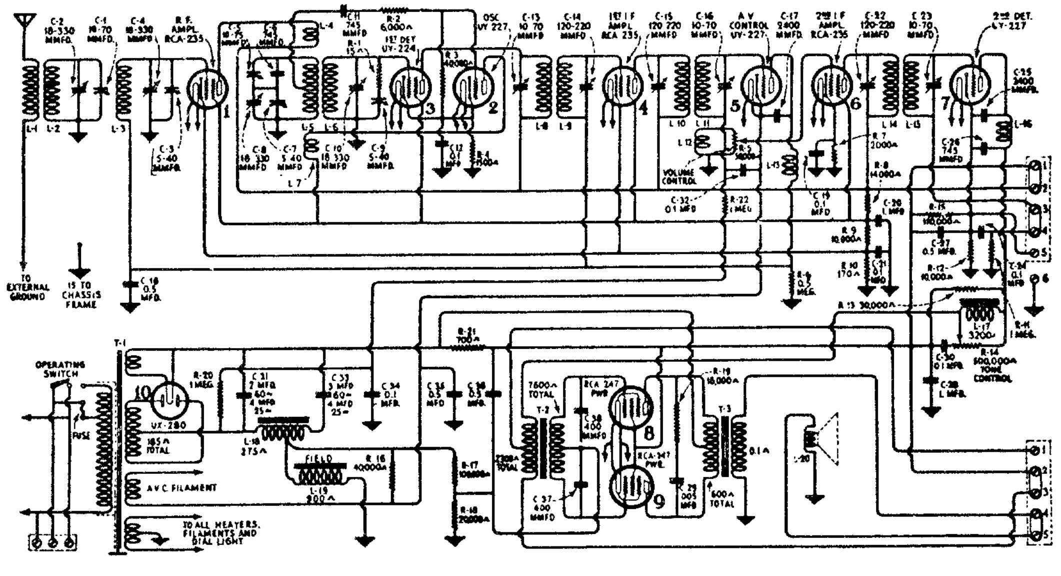



ADJUSTING SCREW FOR 550 K.C.
E
ADJUSTING SCREW FOR 600 K.C.
D
ADJUSTING SCREW FOR 700 K.C.
C
ADJUSTING SCREW FOR 840 K.C.
B
ADJUSTING SCREW FOR 1120 K.C.
A

Gang condenser adjustment positions.



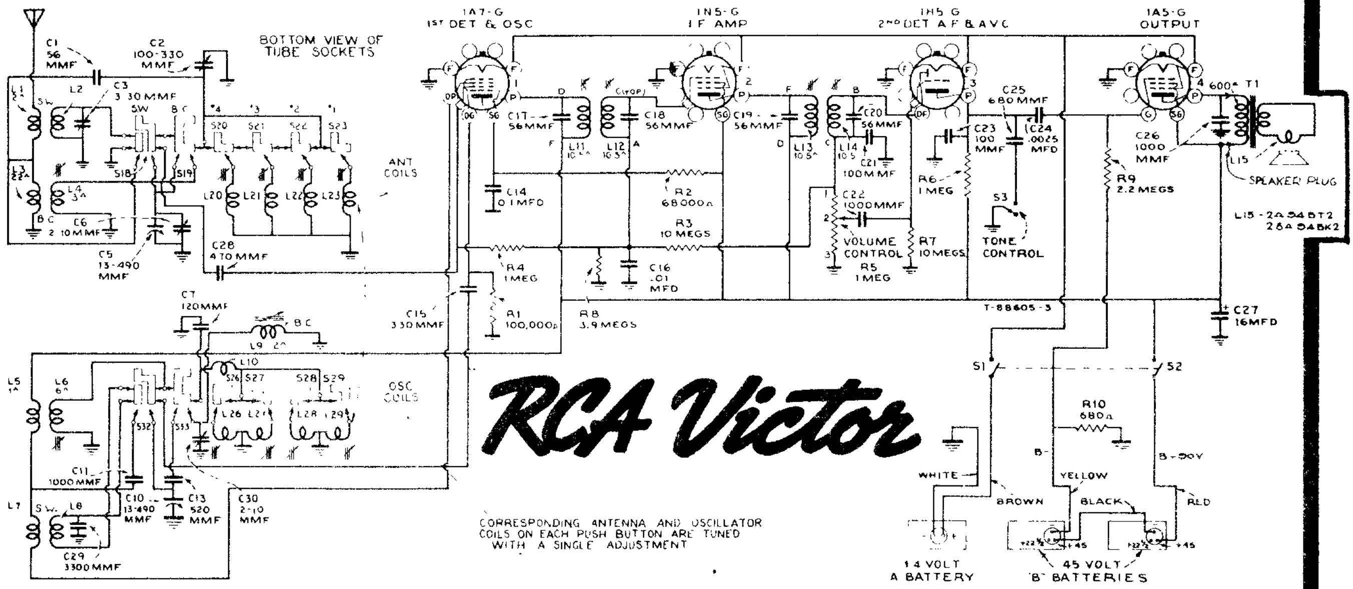
View showing method of checking position of dial.

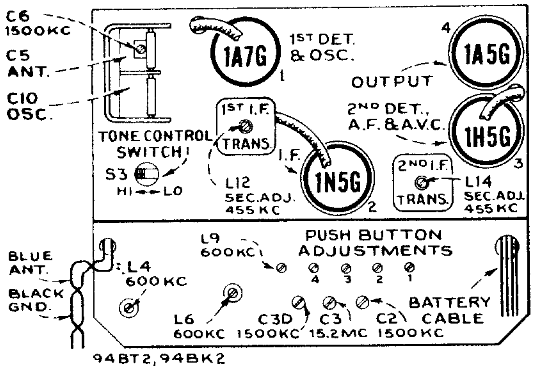


RCA Models R-50, R-55 I.F. 175 KC.

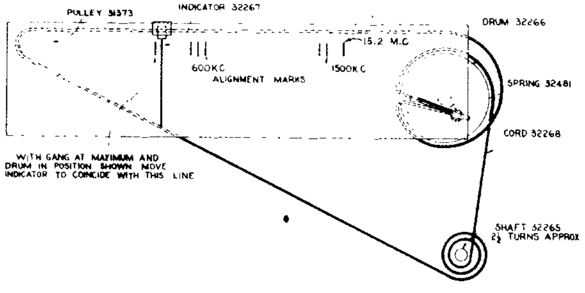
MODELS 94BK2 and 94BT2

Chassis No. RC-390 RC-390





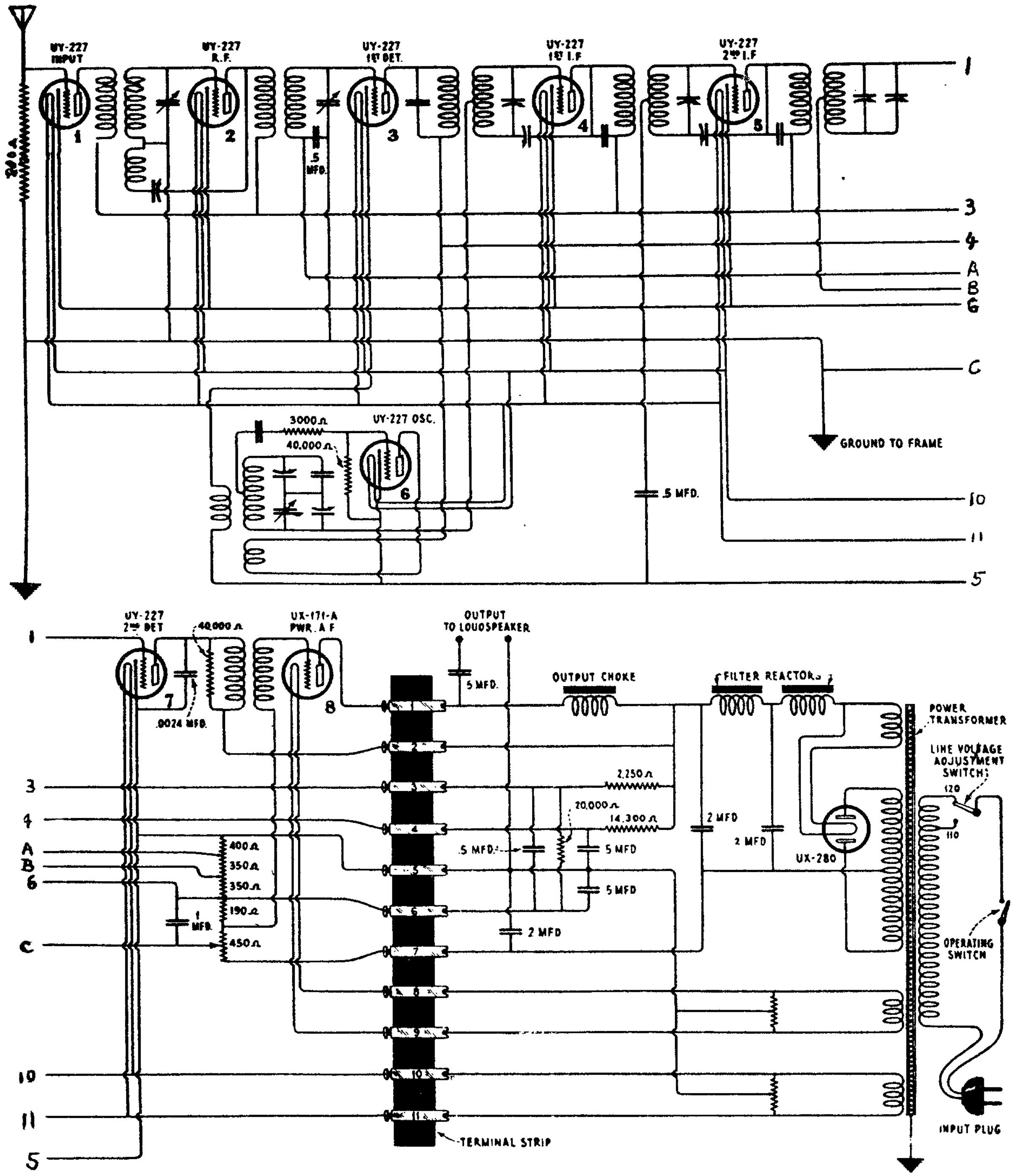
Tube and Trimmer Locations


PULLEY 31373
INDICATOR 32267
DRUM 32266
15.2 M.C
600KC
ALIGNMENT MARKS
1500KC
SPRING 32481
CORD 32268
WITH GANG AT MAXIMUM AND DRUM IN POSITION SHOWN MOVE INDICATOR TO COINCIDE WITH THIS LINE
SHAFT 32265 2½ TURNS APPROX

Dial Drive Hookup and Alignment Marks

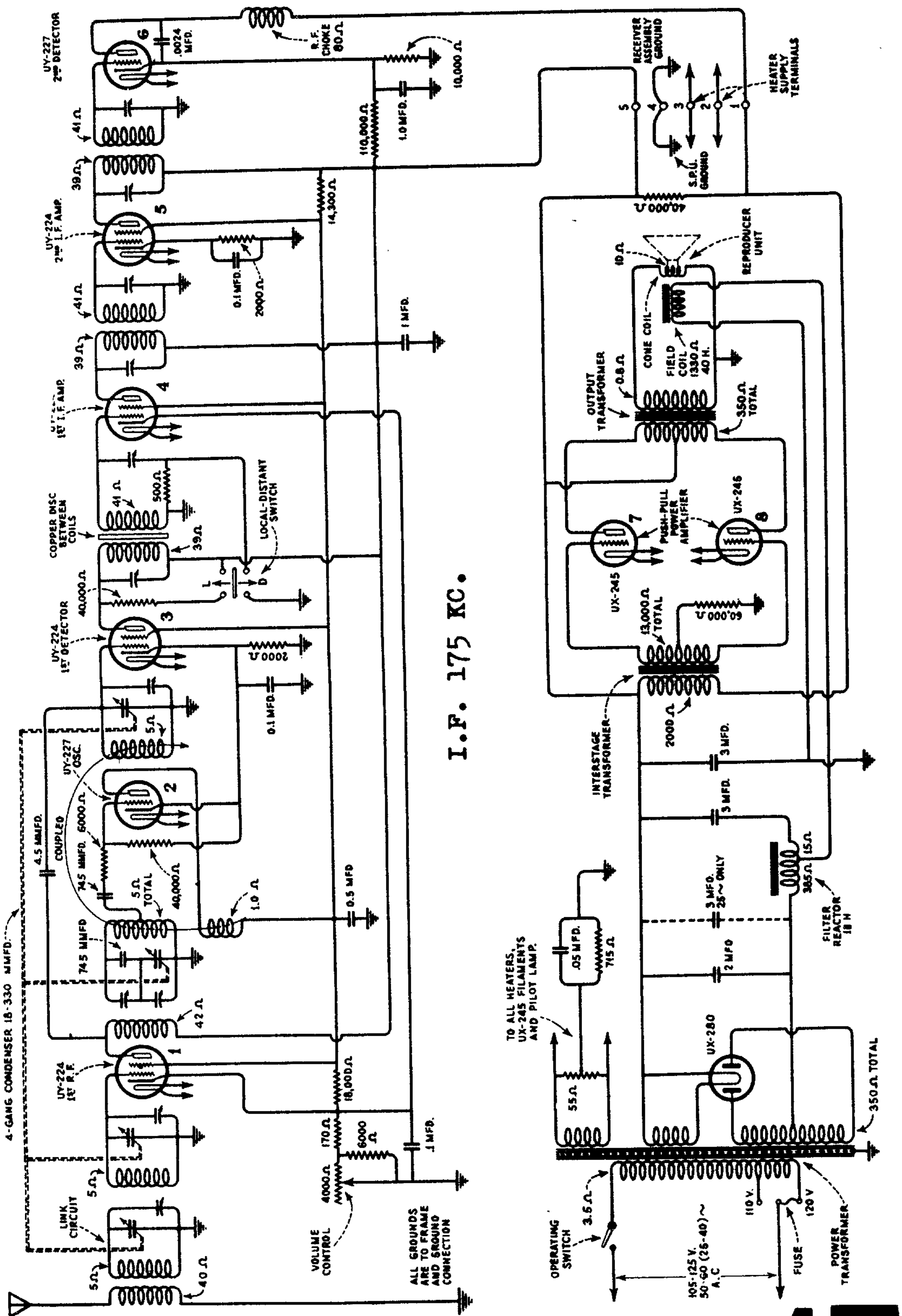
RCA RADIOLA 60

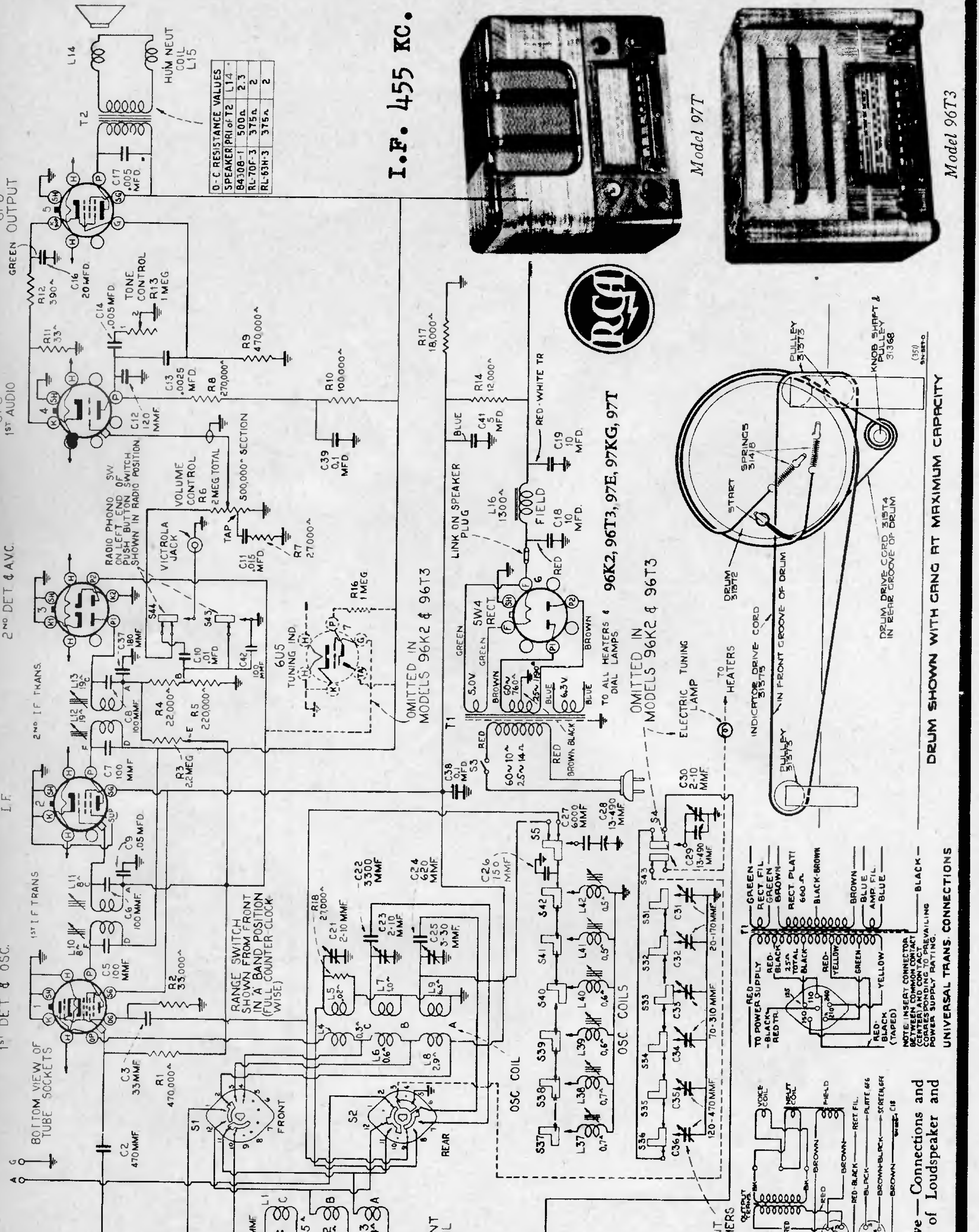
(105-125 Volts. 50-60 Cycle A. C.)



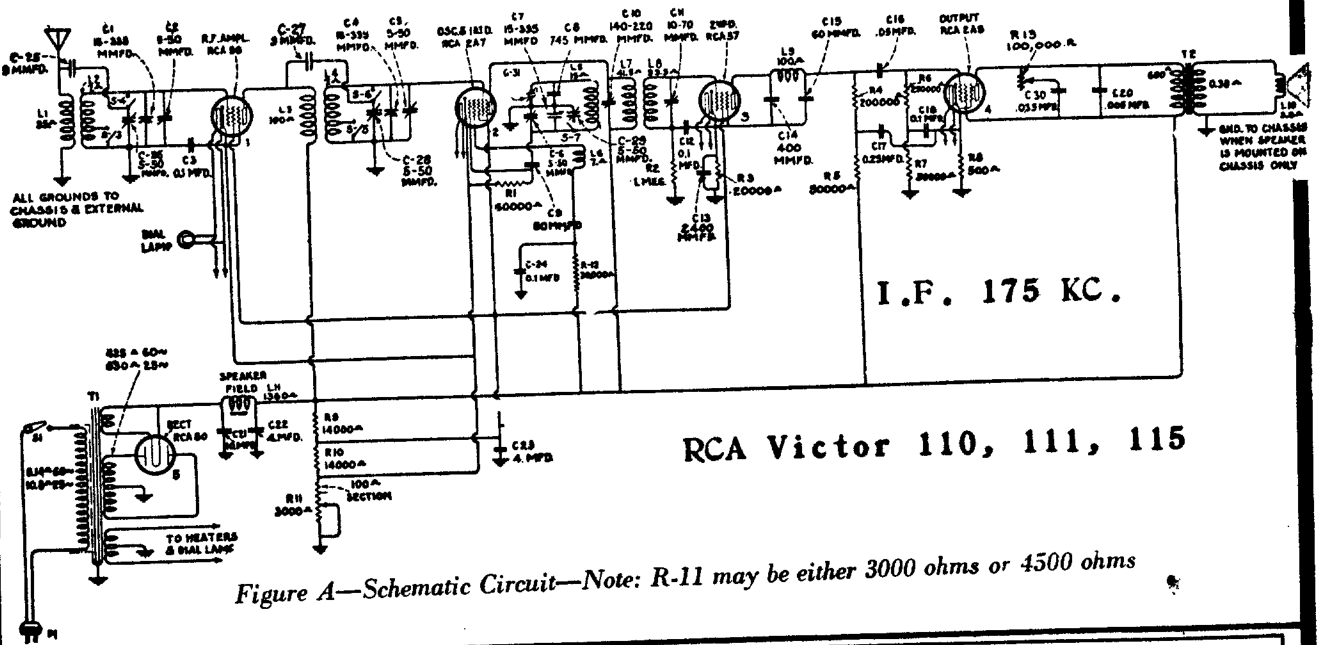
I.F. 180 KC.

RCA Radiola 80, 82, 86




I.F. 455 KC.
Model 97T
Model 96T3
96K2, 96T3, 97E, 97KG, 97T
6K8 1ST DET & OSC.
6K7 I.F.
6H6 2ND DET & AVC
6F5 1ST AUDIO
6F6 OUTPUT
5W4 RECT
6U5 TUNING IND
BOTTOM VIEW OF TUBE SOCKETS
1ST I F TRANS
2ND I F TRANS
HUM NEUT COIL L15
L14
T2
TONE CONTROL R13 1 MEG
VOLUME CONTROL R6 2 MEG TOTAL 500,000^ SECTION TAP
RADIO PHONO SW IN LEFT END OF PUSH BUTTON SWITCH SHOWN IN RADIO POSITION
VICTROLA JACK
RANGE SWITCH SHOWN FROM FRONT IN A BAND POSITION (FULL COUNTER-CLOCK WISE)
OMITTED IN MODELS 96K2 & 96T3
LINK ON SPEAKER PLUG
L16 1300^ FIELD
RED-WHITE TR
TO ALL HEATERS & DIAL LAMPS
ELECTRIC TUNING LAMP
TO HEATERS
OSC COIL
OSC COILS
ANT COIL
ANT TRIMMERS
FRONT
REAR
S1
S2
DRUM 31372
STRING SPRINGS 31418
PULLEY 31373
KNOB SHAFT & PULLEY 31368
DRUM DRIVE CORD 31374 IN REAR GROOVE OF DRUM
INDICATOR DRIVE CORD 31375 IN FRONT GROOVE OF DRUM
DRUM SHOWN WITH GANG AT MAXIMUM CAPACITY
UNIVERSAL TRANS. CONNECTIONS
NOTE: INSERT CONNECTOR BETWEEN COMMON CONTACT (CENTER) AND CONTACT CORRESPONDING TO PREVAILING POWER SUPPLY RATING.
Above — Connections and Colors of Loudspeaker and Cable.

D-C RESISTANCE VALUES		
SPEAKER	PRI of T2	L14
84308-1	500Ω	2.3
RL-70F-3	375Ω	2
RL-63H-3	375Ω	2

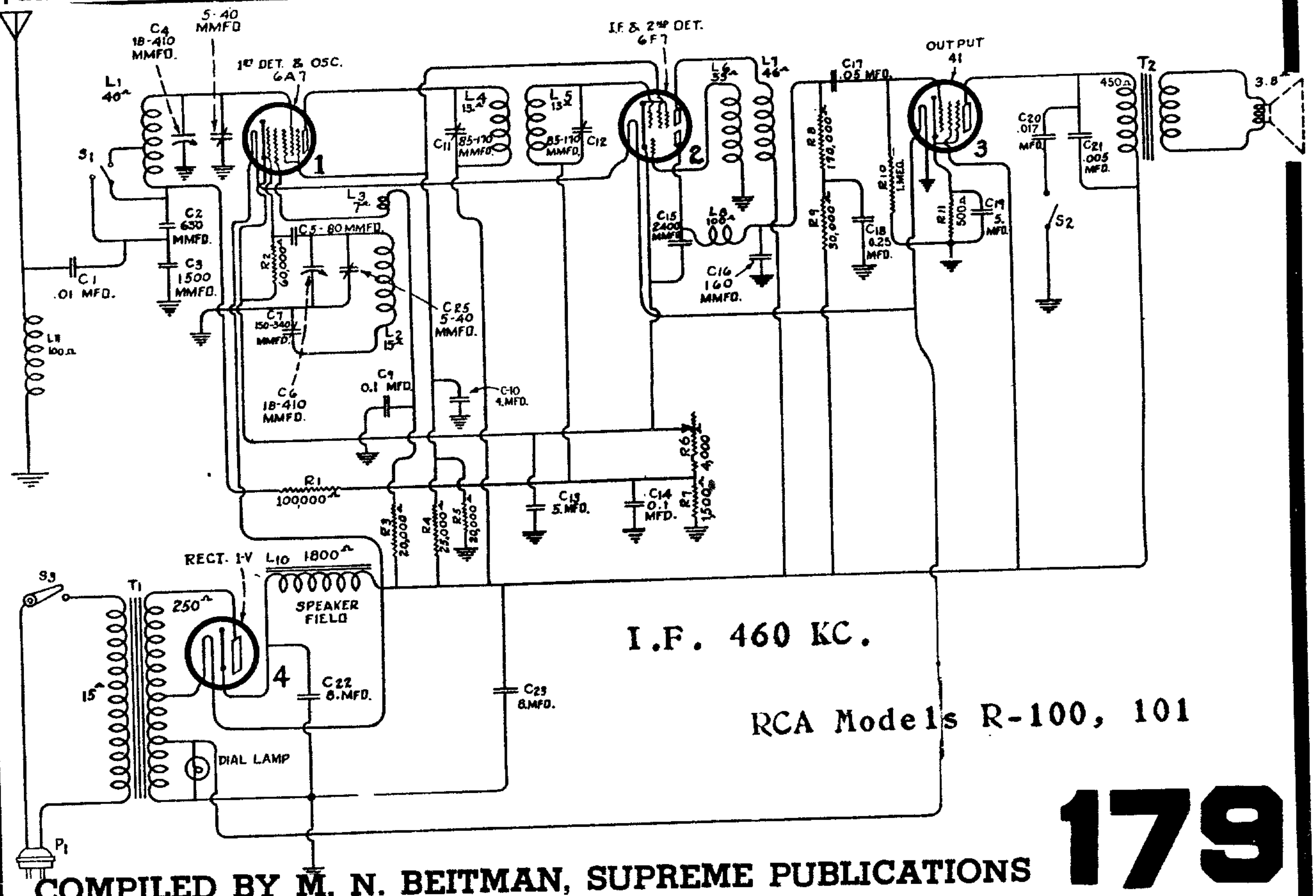


I.F. 175 KC.

RCA Victor 110, 111, 115

Figure A—Schematic Circuit—Note: R-11 may be either 3000 ohms or 4500 ohms

Radiotron No.		Cathode to Control Grid, Volts D. C.	Cathode to Screen Grid, Volts, D. C.	Cathode to Plate, Volts D. C.	Plate Current, M. A.	Heater or Filament, Volts
RCA-6A7	First Detector	1.25	70	235	2.5	6.3
	Oscillator	—	—	180	3.5	
RCA-6F7	I. F.	1.25	70	235	5.5	6.3
	Second Detector	19	—	145*	0.4	
RCA-41	Output	17	240	230	26.5	6.3
RCA-1-V	Rectifier	—	—	335 RMS	50	6.3

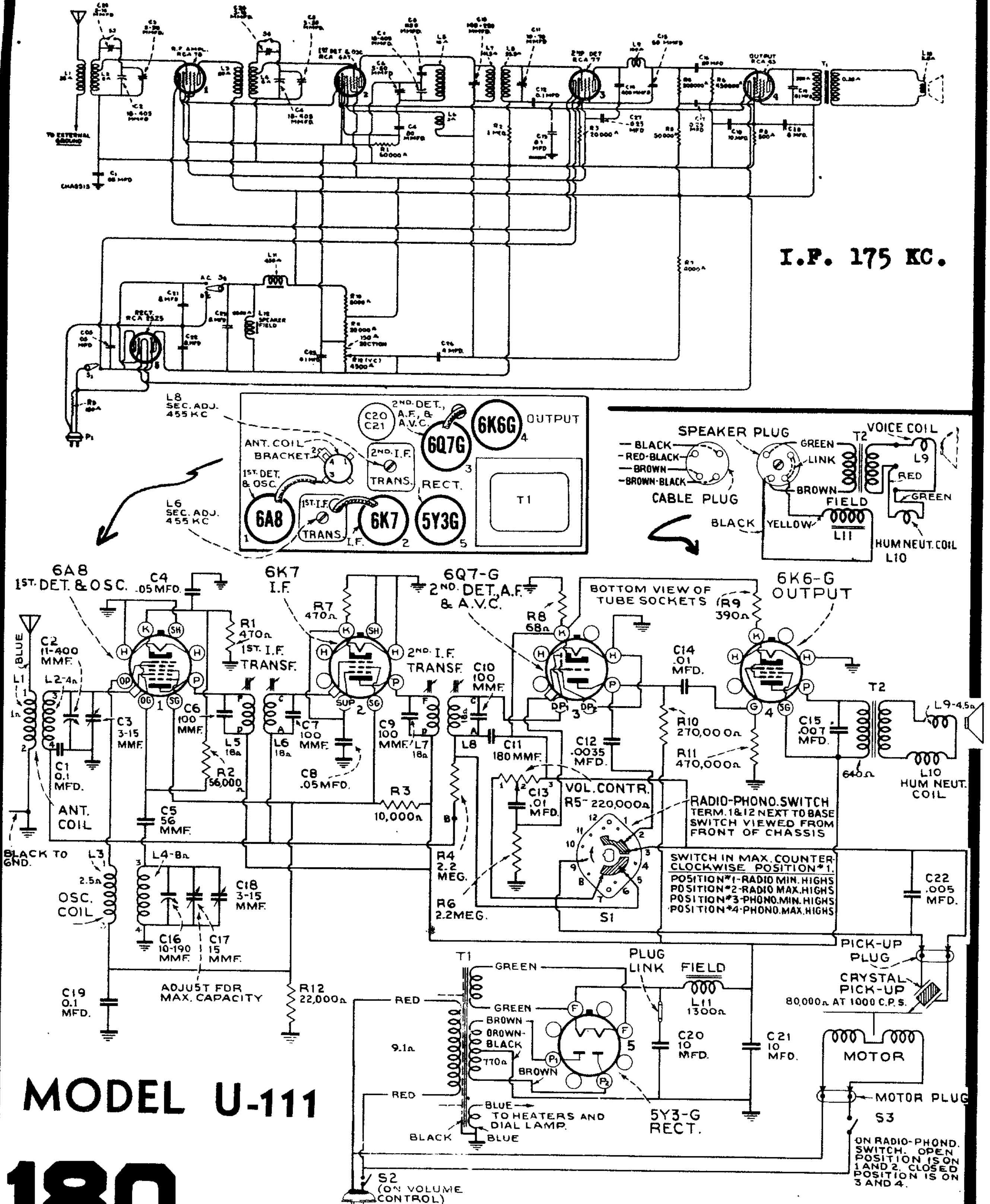


I.F. 460 KC.

RCA Models R-100, 101

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

RCA Victor 114



MODEL U-111

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

RCA Victor 120

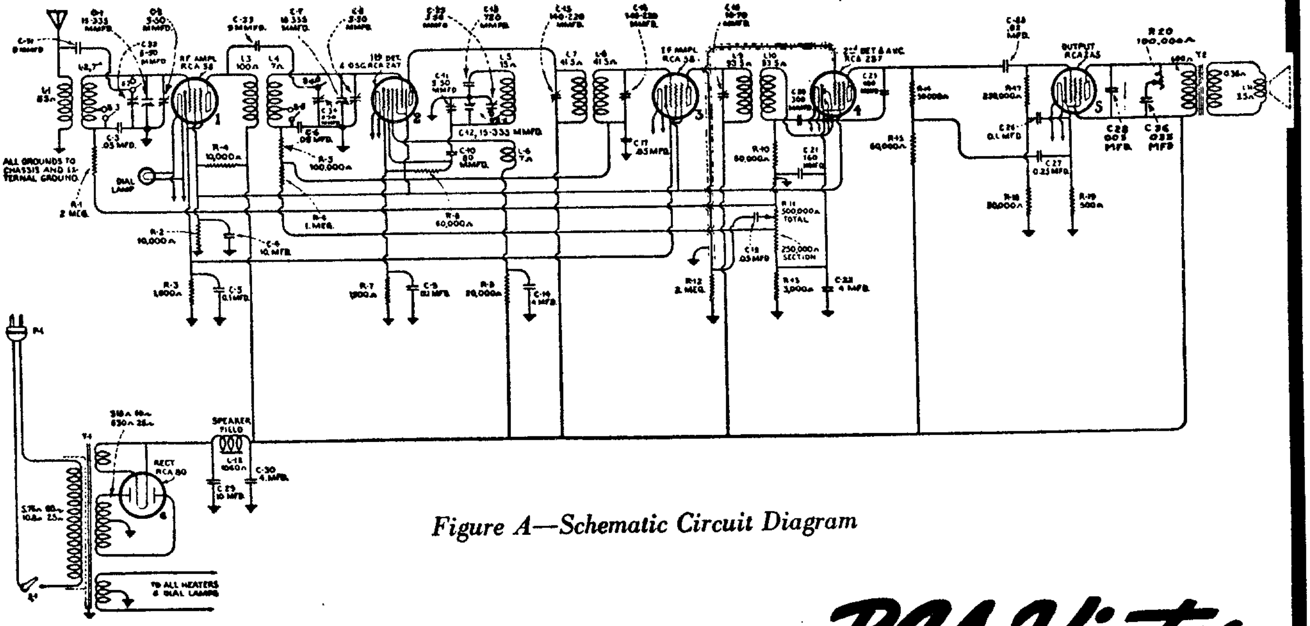


Figure A—Schematic Circuit Diagram

I.F. 175 KC.

RCA Victor

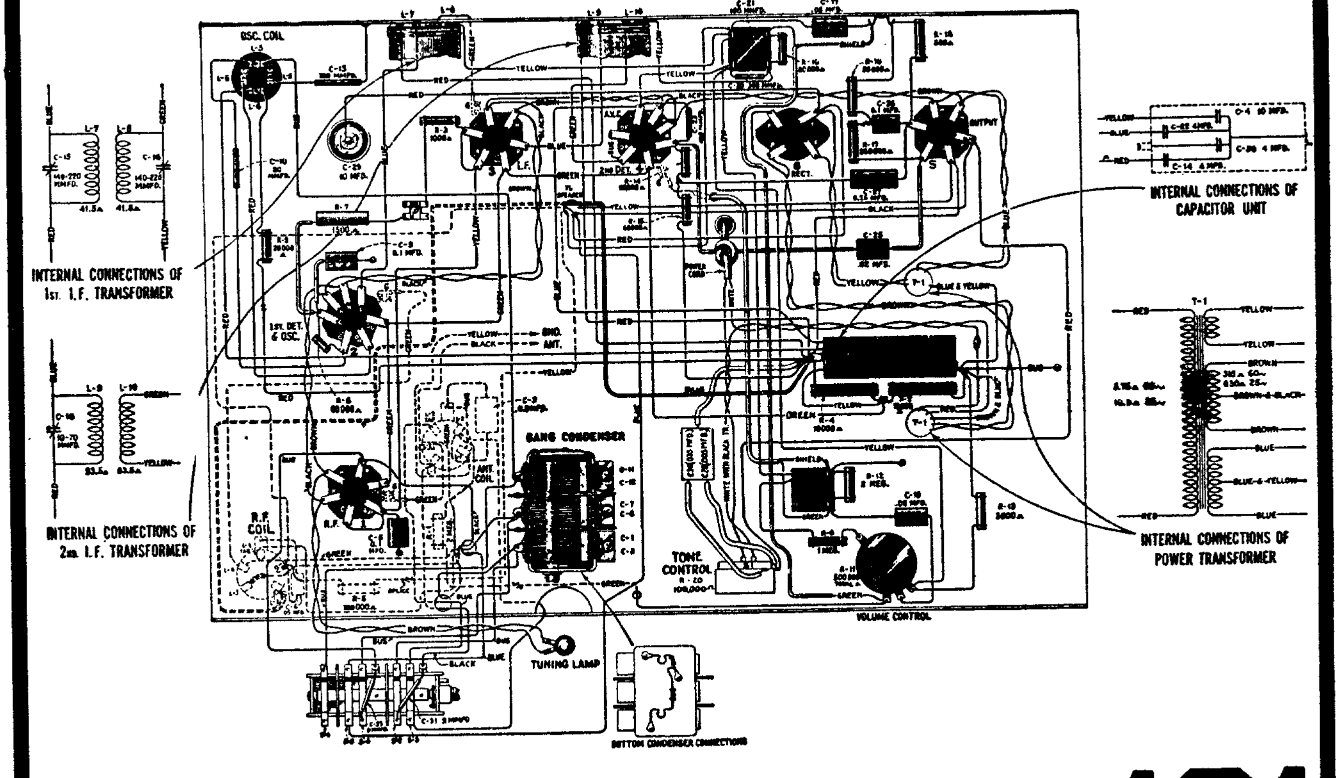
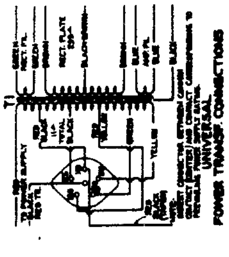
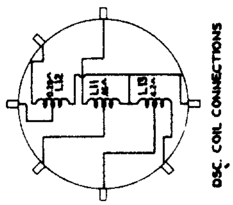

OSC. COIL
INTERNAL CONNECTIONS OF 1st. I.F. TRANSFORMER
INTERNAL CONNECTIONS OF 2nd. I.F. TRANSFORMER
INTERNAL CONNECTIONS OF CAPACITOR UNIT
INTERNAL CONNECTIONS OF POWER TRANSFORMER
1ST. DET. & OSC.
R.F. COIL
ANT. COIL
GANG CONDENSER
TONE CONTROL R-20 100,000 Ω
VOLUME CONTROL
TUNING LAMP
BOTTOM CONDENSER CONNECTIONS
RECT.
OUTPUT

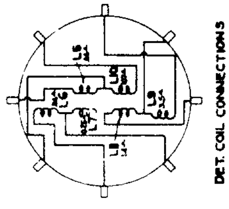
Figure B—Wiring Diagram

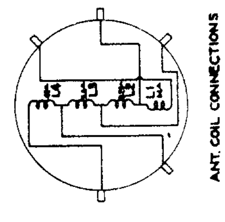
MODELS 810K, 810K1, and 810T

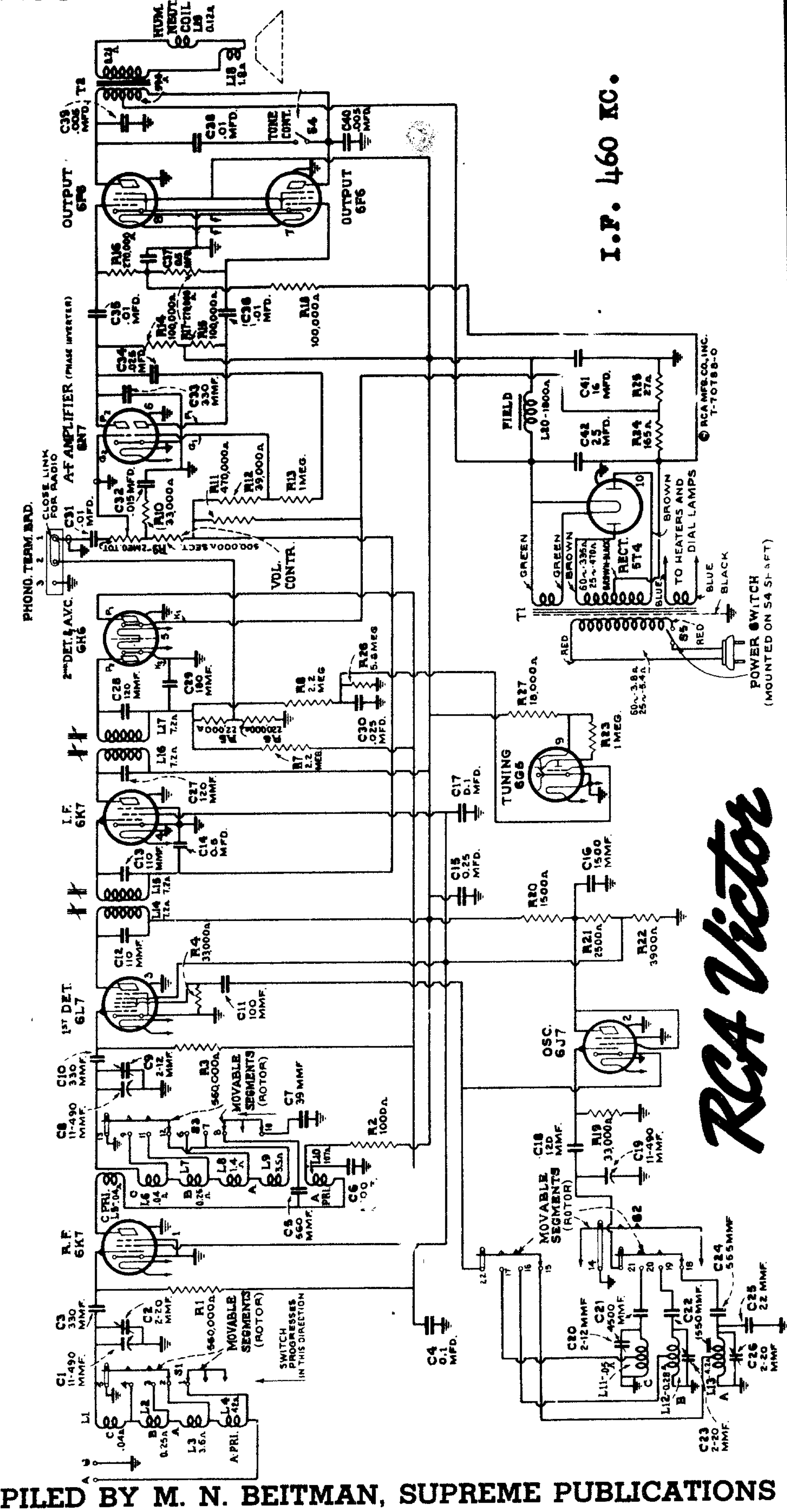
I.F. 460 KC.





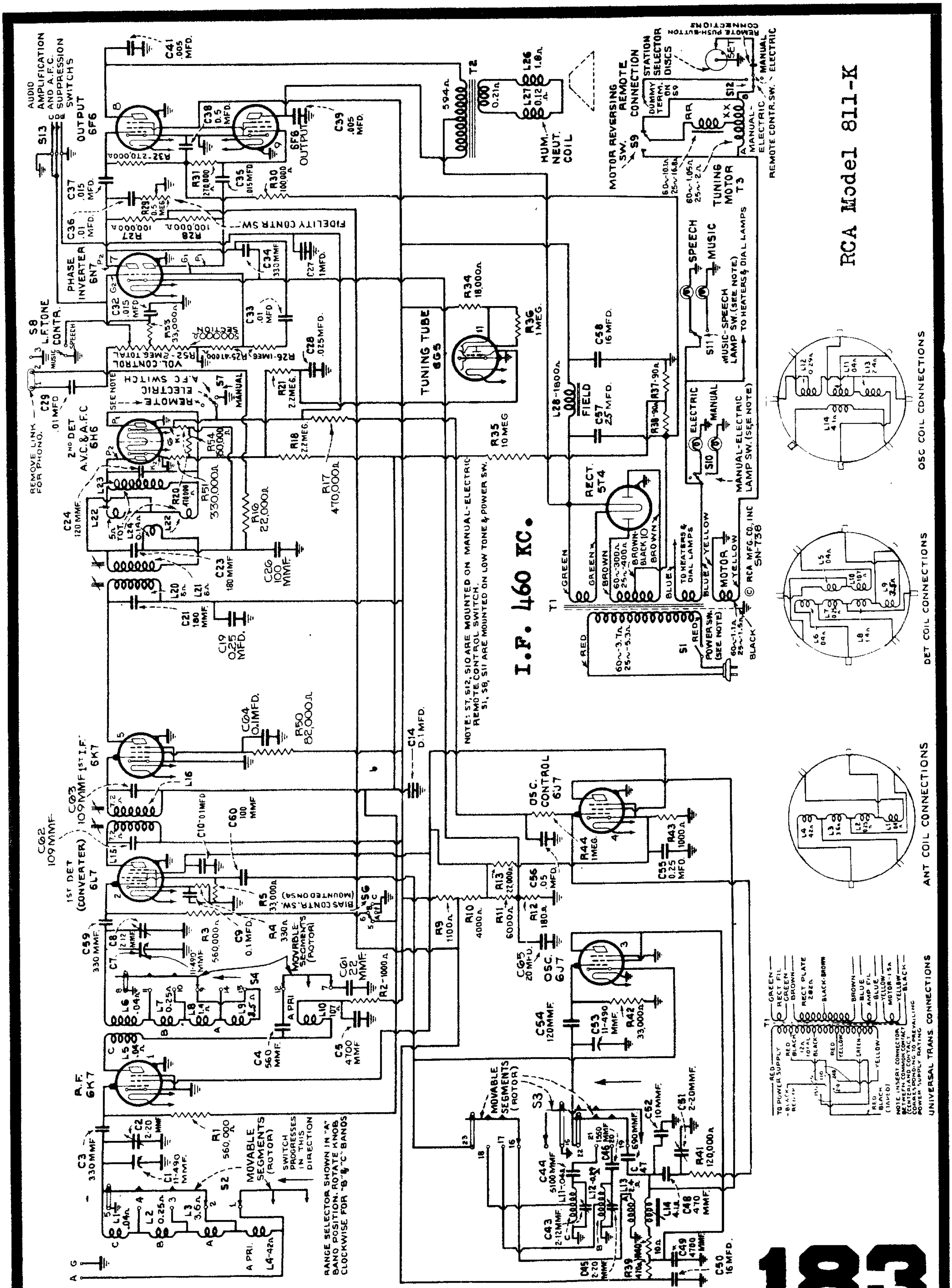






COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

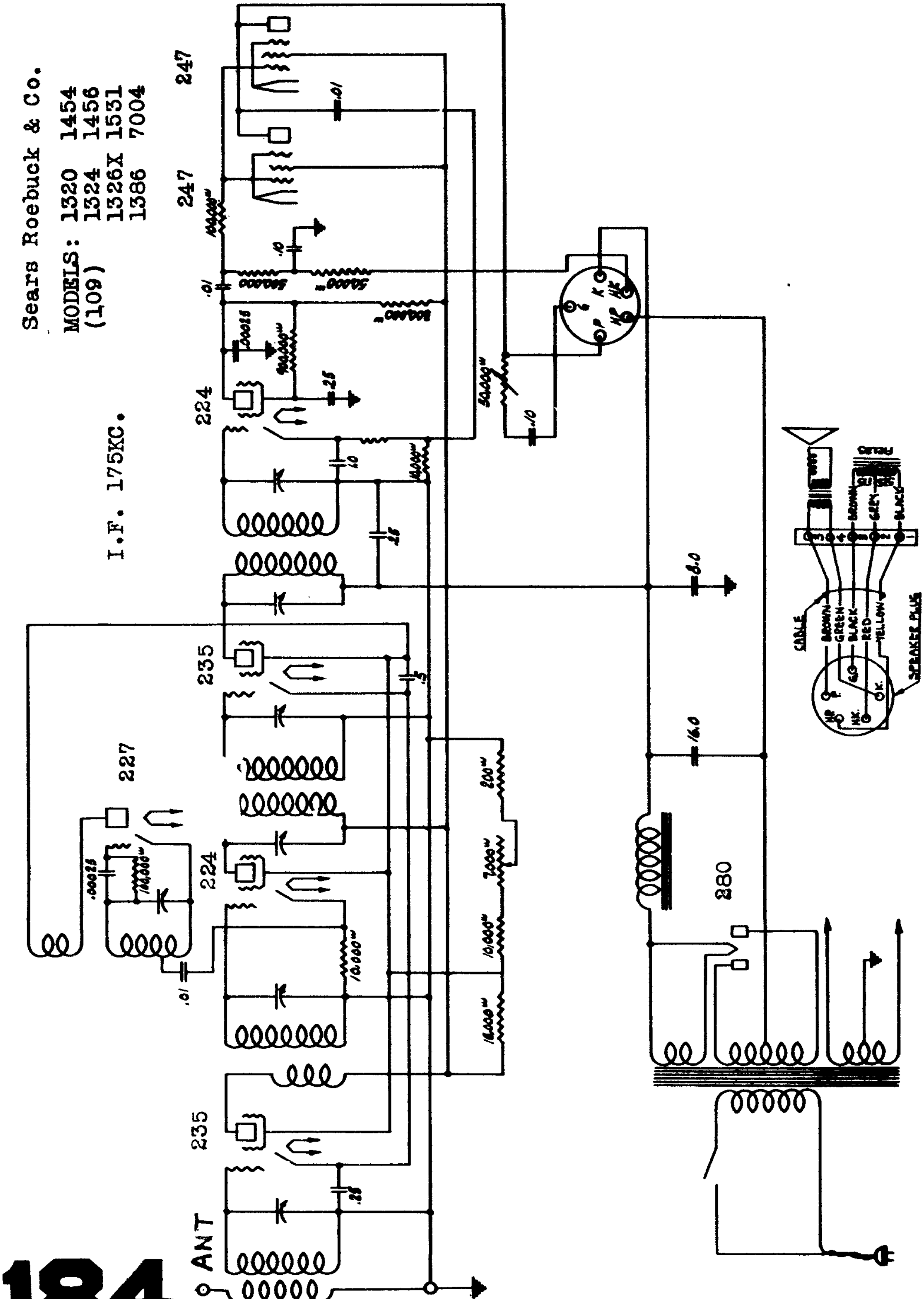
RCA Model 811-K



I.F. 460 KC.

NOTE: S7, S12, S10 ARE MOUNTED ON MANUAL-ELECTRIC REMOTE CONTROL SWITCH. S1, S8, S11 ARE MOUNTED ON LOW TONE & POWER SW.

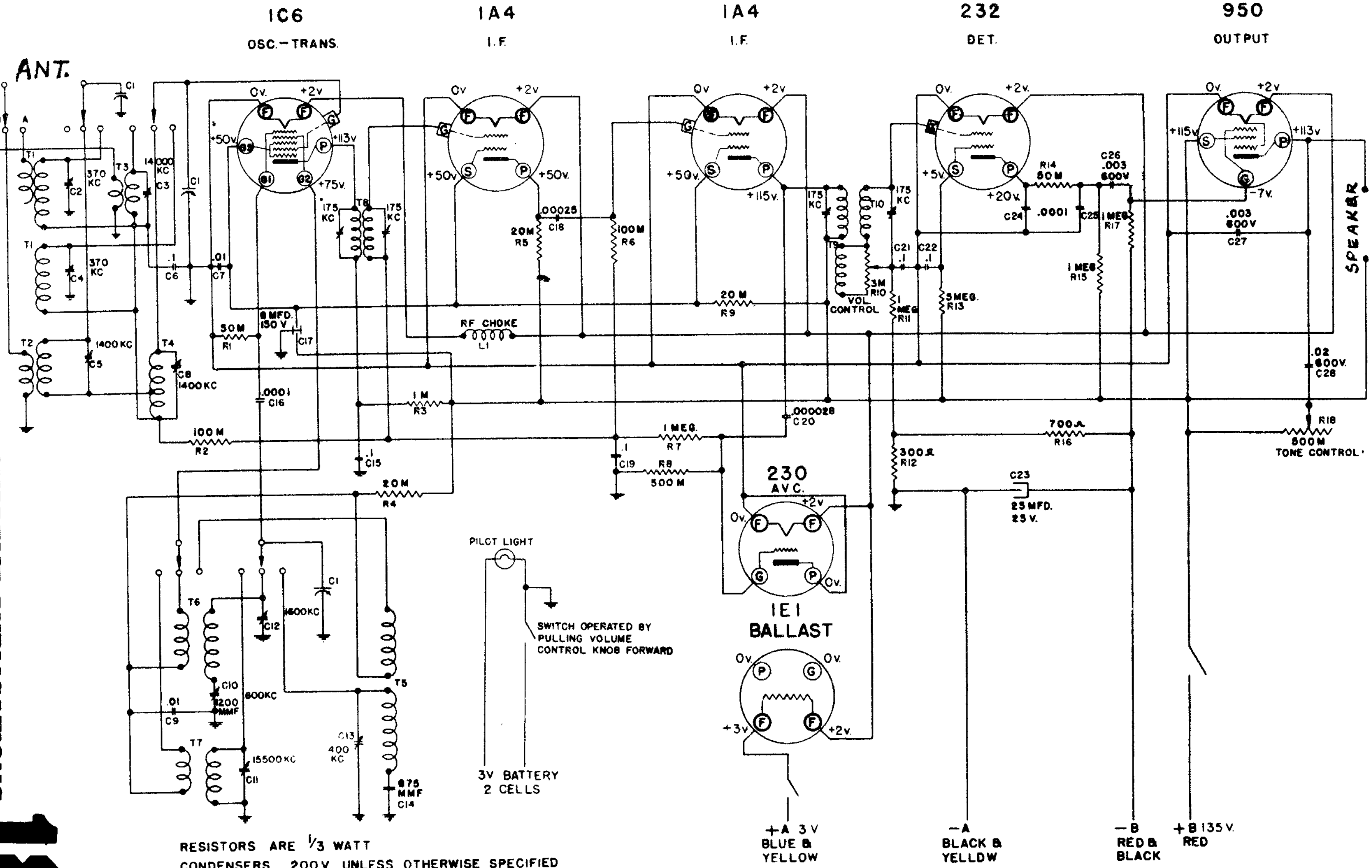
RANGE SELECTOR SHOWN IN "A" BAND POSITION. ROTATE KNOB CLOCKWISE FOR "B" & "C" BANDS



Sears Roebuck & Co.

MODELS: 1320 1454
(109) 1324 1456
1326X 1531
1386 7004

I. F. 175KC.



RESISTORS ARE 1/3 WATT

CONDENSERS 200V. UNLESS OTHERWISE SPECIFIED

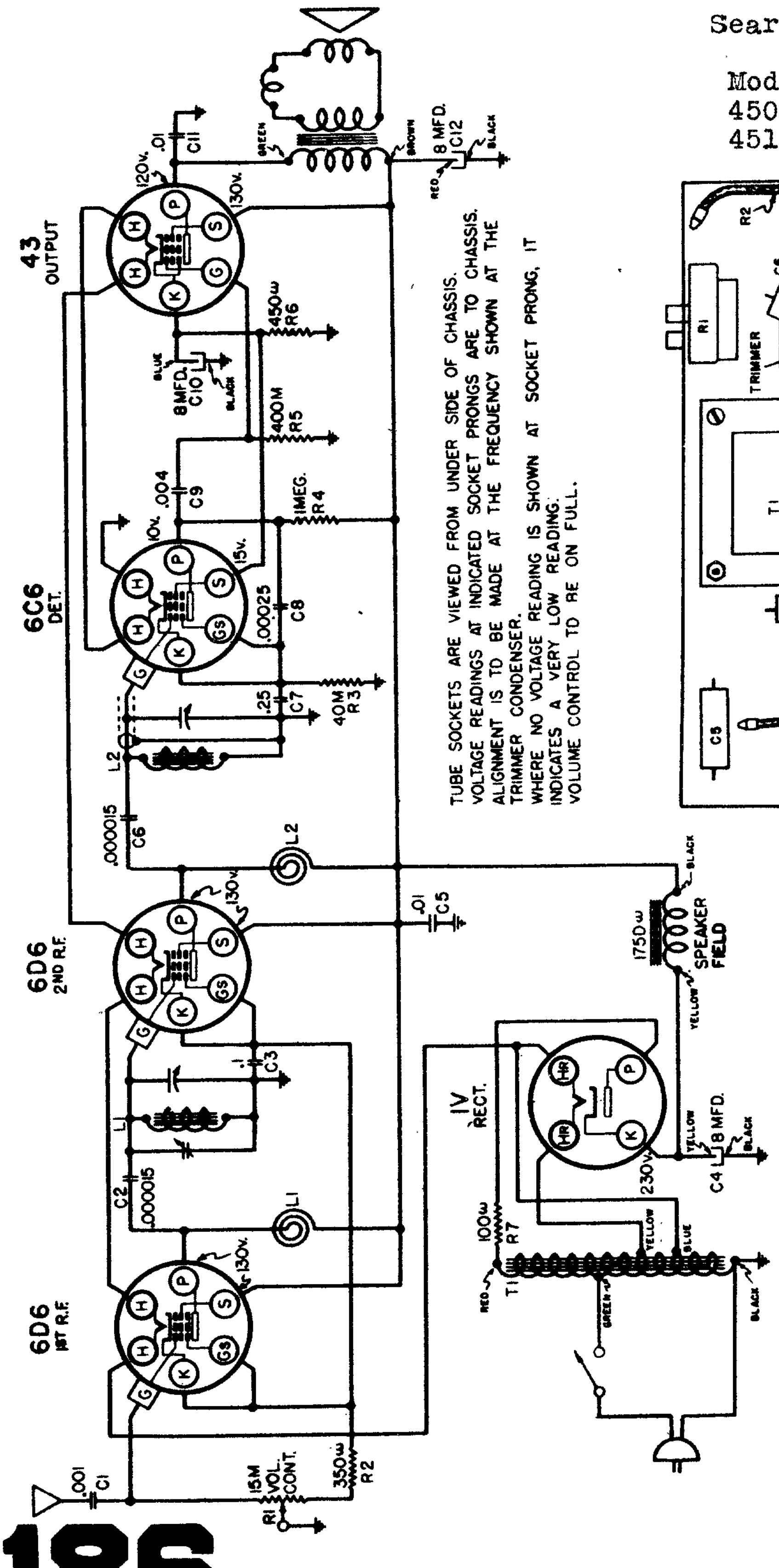
VOLTAGE READINGS ARE TAKEN FROM CHASSIS TO INDICATED PRONG OF EACH SOCKET ALIGNMENT IS TO BE MADE AT FREQUENCIES SHOWN AT EACH TRIMMER.
WHERE NO VALUE IS SHOWN, READING IS VERY LOW BECAUSE OF HIGH SERIES RESISTANCE IN CIRCUIT.
TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS.

SCHEMATIC - MODELS 1923-1933-1983-1993

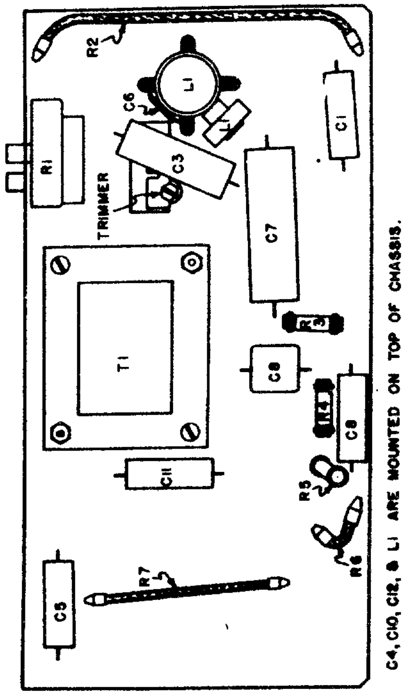
Sears, Roebuck & Co.

Sears Roebuck & Co.

Models: 4414, 4415,
4500, 4505, 4506,
4510, 4511

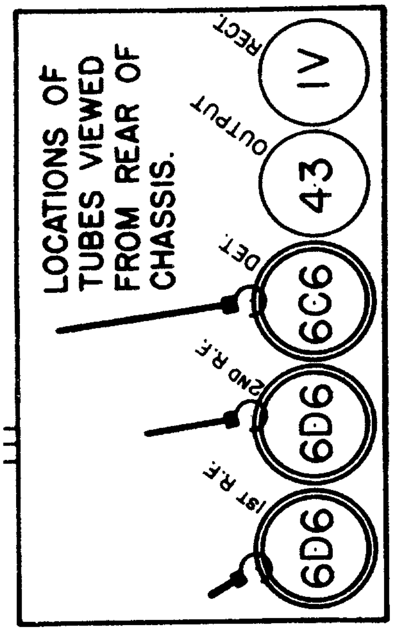


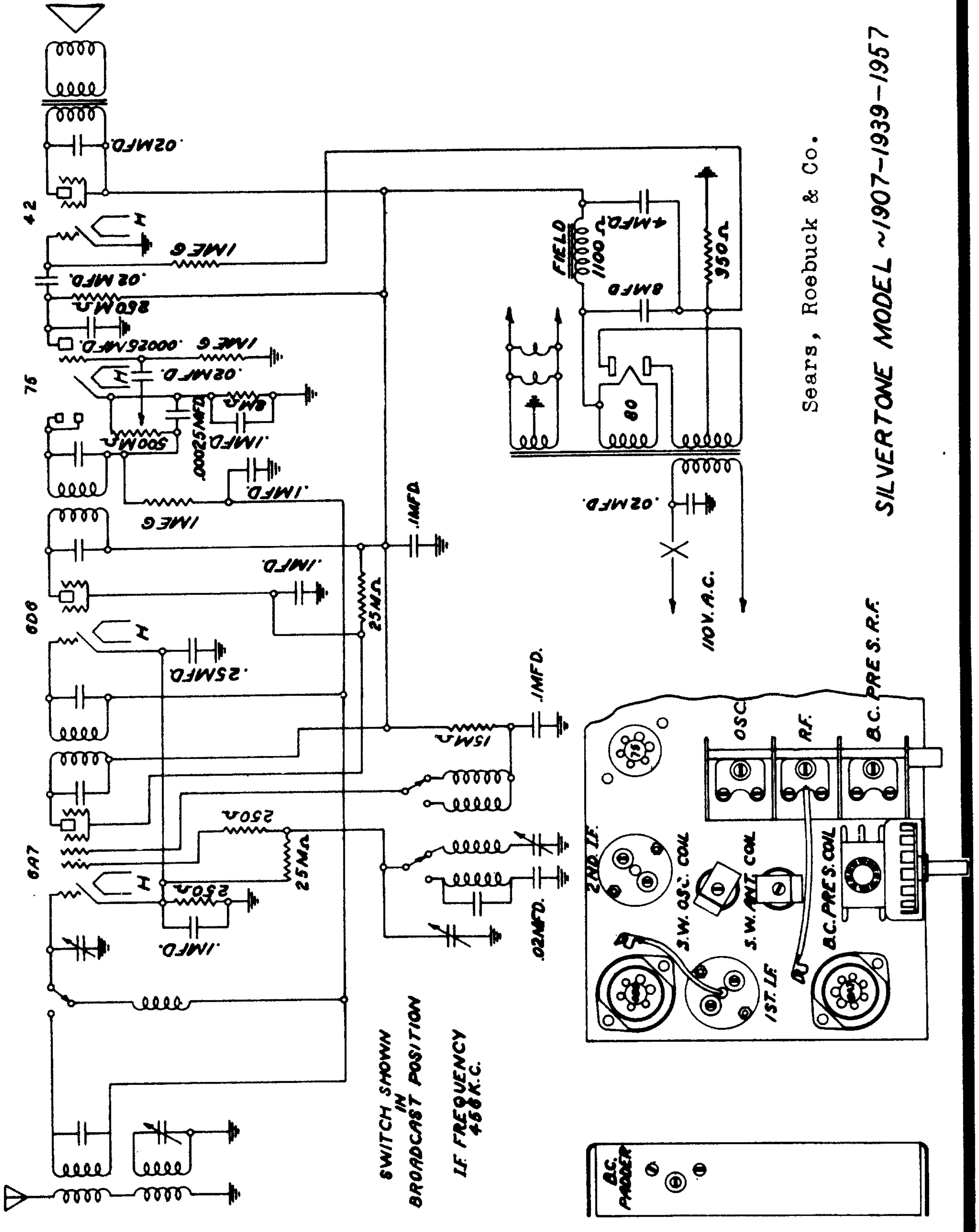
TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS.
VOLTAGE READINGS AT INDICATED SOCKET PRONGS ARE TO CHASSIS.
ALIGNMENT IS TO BE MADE AT THE FREQUENCY SHOWN AT THE TRIMMER CONDENSER.
WHERE NO VOLTAGE READING IS SHOWN AT SOCKET PRONG, IT INDICATES A VERY LOW READING.
VOLUME CONTROL TO BE ON FULL.



C4, C10, C12, & L1 ARE MOUNTED ON TOP OF CHASSIS.

LOCATIONS OF PARTS UNDER CHASSIS


LOCATIONS OF TUBES VIEWED FROM REAR OF CHASSIS.



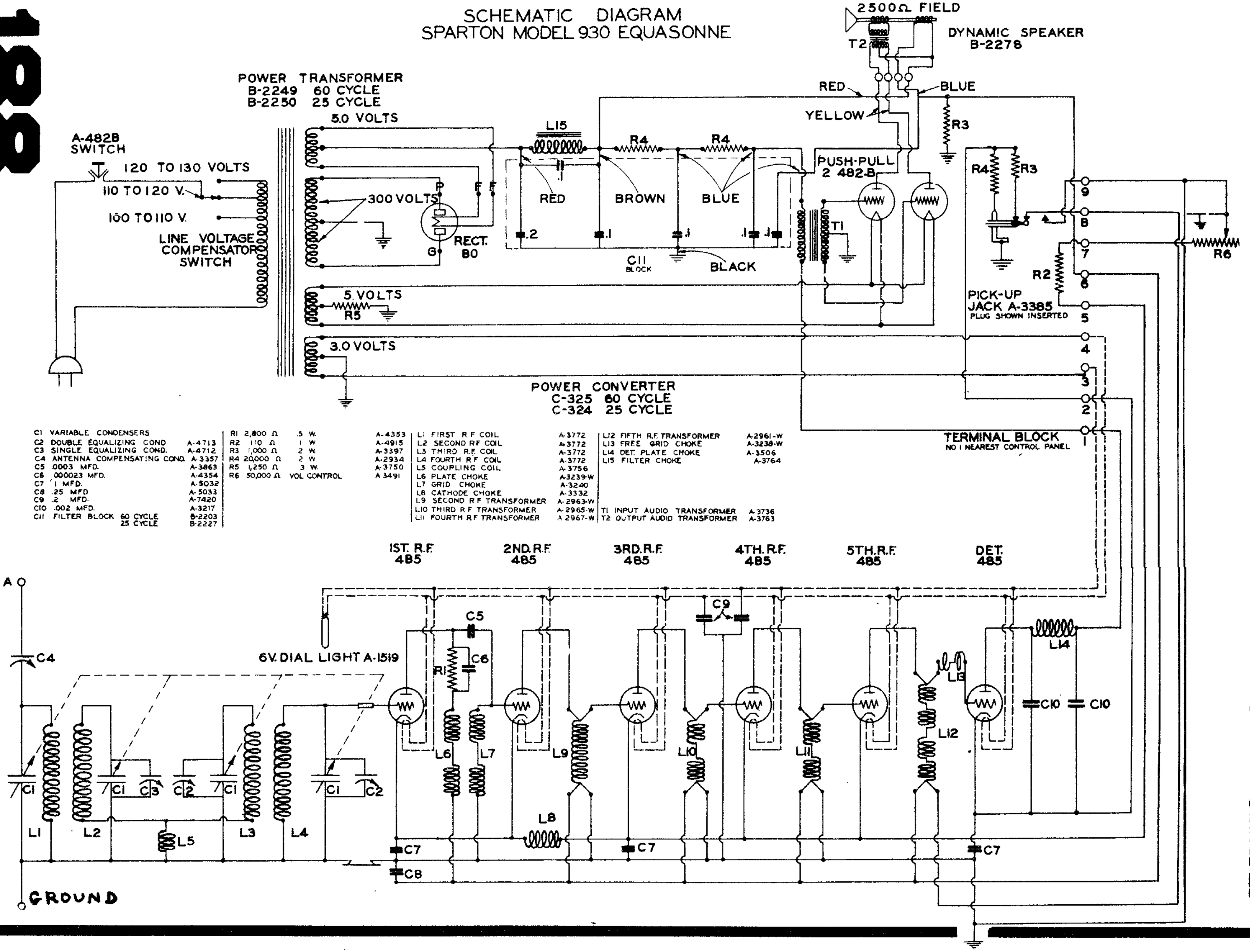
SWITCH SHOWN IN BROADCAST POSITION

I.F. FREQUENCY 456 K.C.

Sears, Roebuck & Co.

SILVERTONE MODEL ~1907-1939-1957

SCHEMATIC DIAGRAM
SPARTON MODEL 930 EQUASONNE



C1	VARIABLE CONDENSERS	
C2	DOUBLE EQUALIZING COND	A-4713
C3	SINGLE EQUALIZING COND.	A-4712
C4	ANTENNA COMPENSATING COND.	A-3357
C5	.0003 MFD.	A-3863
C6	.000023 MFD.	A-4354
C7	.1 MFD.	A-5032
C8	.25 MFD	A-5033
C9	.2 MFD.	A-7420
C10	.002 MFD.	A-3217
C11	FILTER BLOCK 60 CYCLE 25 CYCLE	B-2203 B-2227

R1	2,800 Ω	.5 W.	A-4353
R2	110 Ω	1 W	A-4915
R3	1,000 Ω	2 W.	A-3397
R4	20,000 Ω	2 W	A-2934
R5	1,250 Ω	3 W.	A-3750
R6	50,000 Ω	VOL CONTROL	A 3491

L1	FIRST R F COIL	A-3772
L2	SECOND RF COIL	A-3772
L3	THIRD R.F. COIL	A-3772
L4	FOURTH R F COIL	A-3772
L5	COUPLING COIL	A-3756
L6	PLATE CHOKE	A-3239-W
L7	GRID CHOKE	A-3240
L8	CATHODE CHOKE	A-3332
L9	SECOND R F TRANSFORMER	A-2963-W
L10	THIRD R F TRANSFORMER	A-2965-W
L11	FOURTH R.F TRANSFORMER	A 2967-W
L12	FIFTH R.F. TRANSFORMER	A-2961-W
L13	FREE GRID CHOKE	A-3238-W
L14	DET. PLATE CHOKE	A-3506
L15	FILTER CHOKE	A-3764
T1	INPUT AUDIO TRANSFORMER	A-3736
T2	OUTPUT AUDIO TRANSFORMER	A-3763

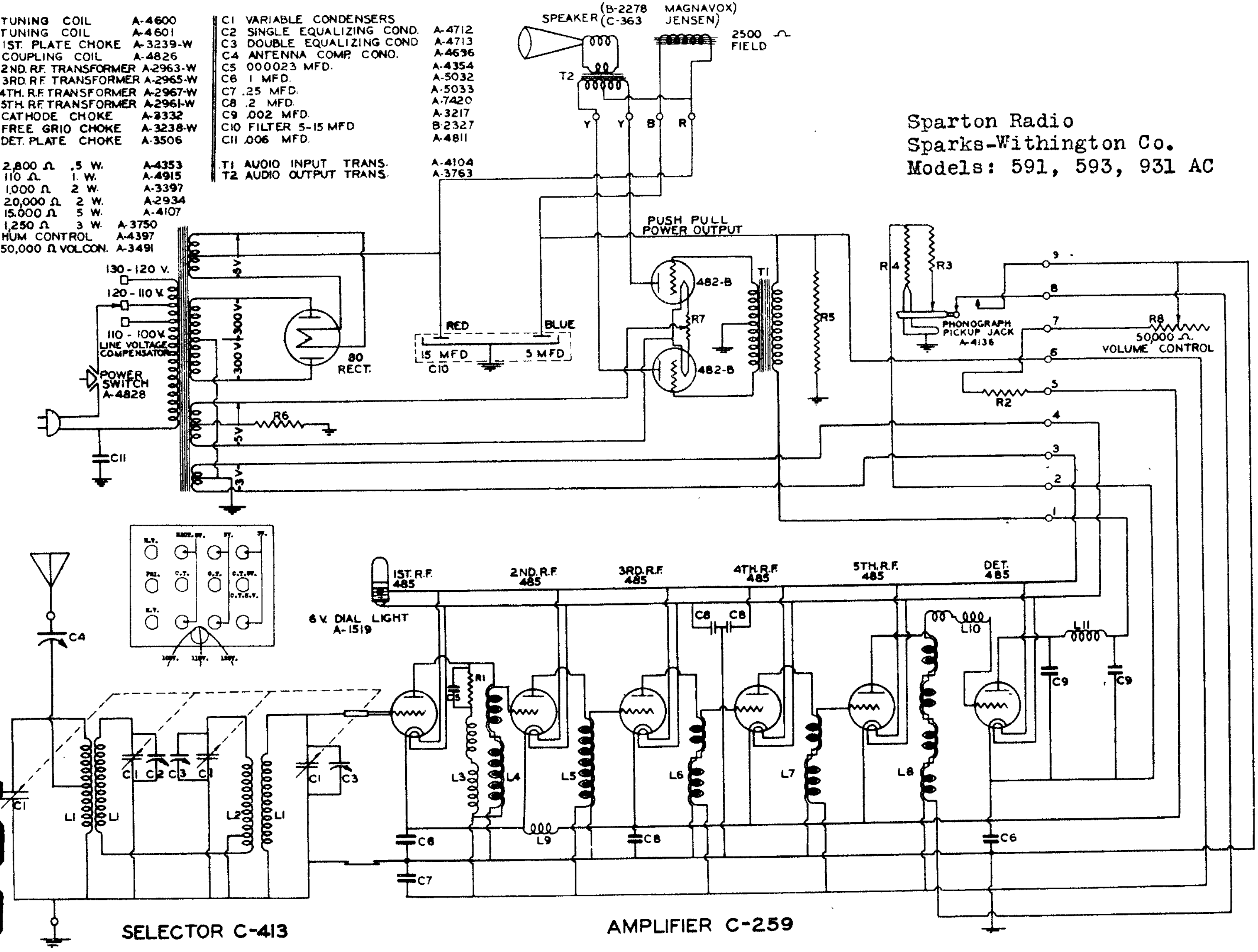
Sparton Radio
Sparks-Withington Co.
Models: 591, 593, 931 AC

L1	TUNING COIL	A-4600
L2	TUNING COIL	A-4601
L3	1ST. PLATE CHOKE	A-3239-W
L4	COUPLING COIL	A-4826
L5	2ND. R.F. TRANSFORMER	A-2963-W
L6	3RD. R.F. TRANSFORMER	A-2965-W
L7	4TH. R.F. TRANSFORMER	A-2967-W
L8	5TH. R.F. TRANSFORMER	A-2961-W
L9	CATHODE CHOKE	A-3332
L10	FREE GRID CHOKE	A-3238-W
L11	DET. PLATE CHOKE	A-3506

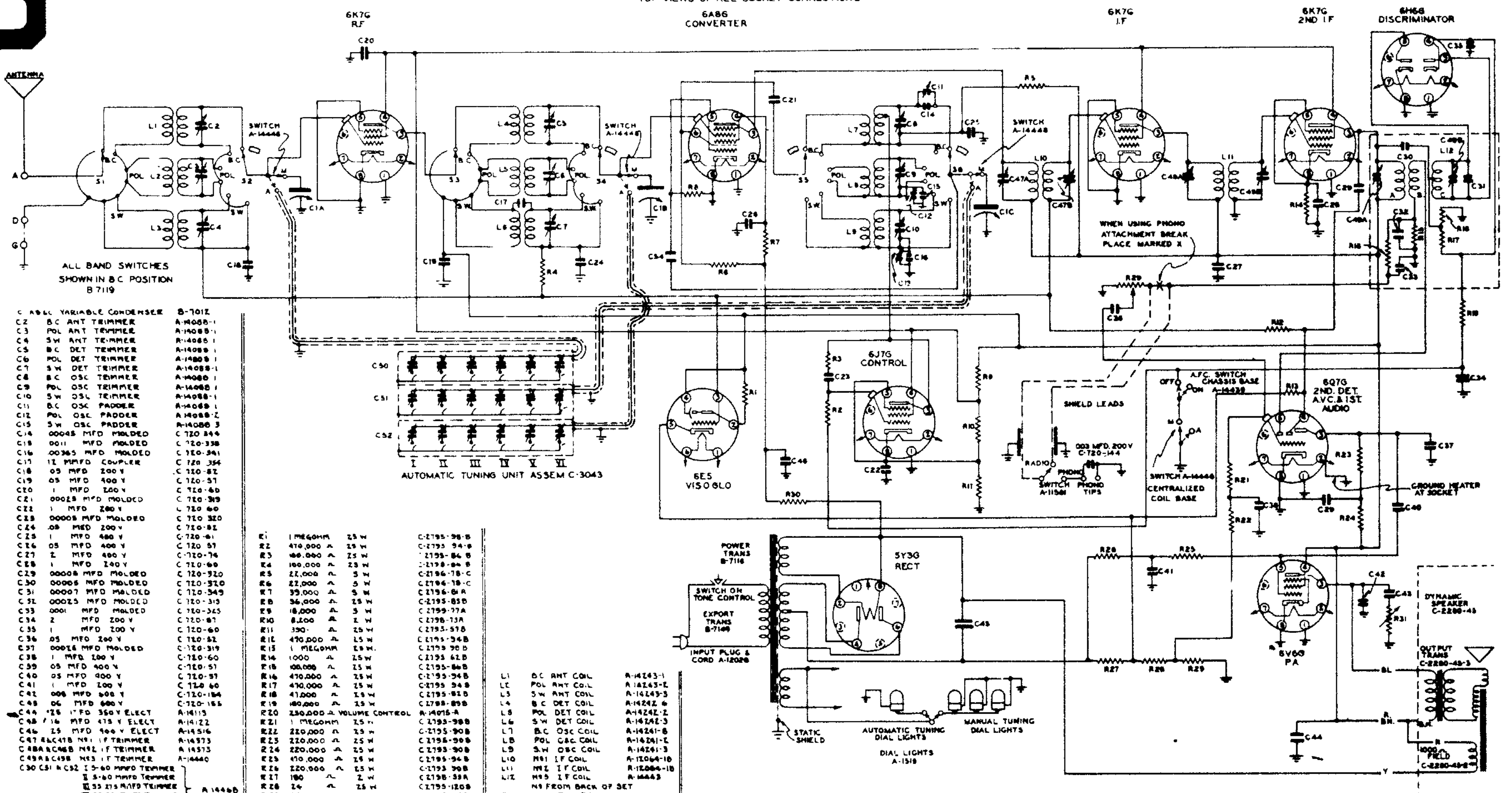
R1	2,800 Ω	.5 W.	A-4353
R2	110 Ω	1. W.	A-4915
R3	1,000 Ω	2 W.	A-3397
R4	20,000 Ω	2 W.	A-2934
R5	15,000 Ω	5 W.	A-4107
R6	1,250 Ω	3 W.	A-3750
R7	HUM CONTROL		A-4397
R8	50,000 Ω VOLCON.		A-3491

C1	VARIABLE CONDENSERS	A-4712
C2	SINGLE EQUALIZING COND.	A-4713
C3	DOUBLE EQUALIZING COND	A-4636
C4	ANTENNA COMP. COND.	A-4354
C5	000023 MFD.	A-5032
C6	1 MFD.	A-5033
C7	.25 MFD.	A-7420
C8	.2 MFD.	A-3217
C9	.002 MFD.	B-2327
C10	FILTER 5-15 MFD	A-4811
C11	.006 MFD.	

T1	AUDIO INPUT TRANS.	A-4104
T2	AUDIO OUTPUT TRANS.	A-3763



SCHEMATIC DIAGRAM
SPARTON SUPERHETERODYNE MODEL 1068, 1078, 1068X & 1078X
INTERMEDIATE FREQUENCY 456 K.C.
TOP VIEWS OF ALL SOCKET CONNECTIONS



ALL BAND SWITCHES
SHOWN IN B C POSITION
B 7119

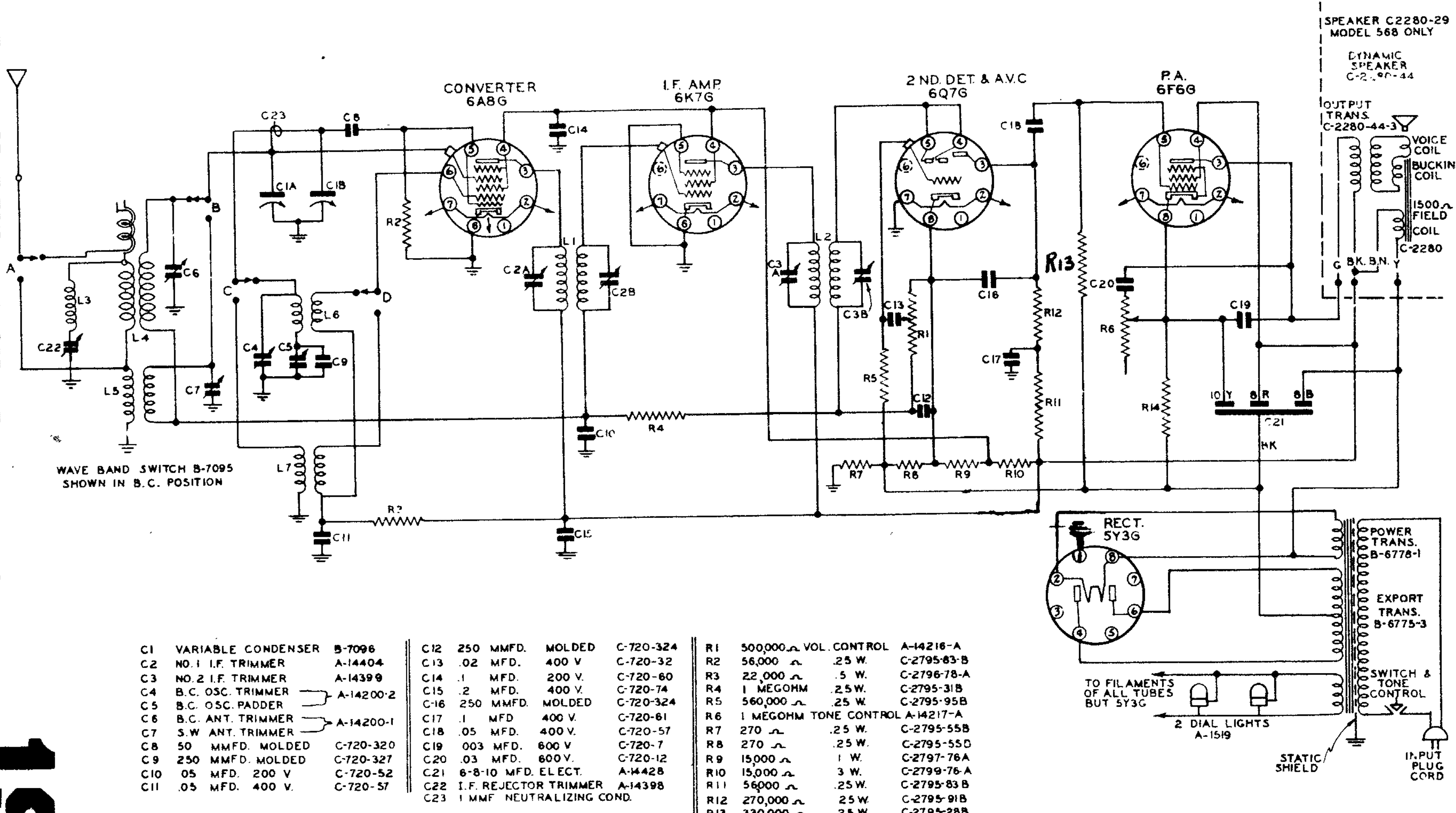
C A B & C	VARIABLE CONDENSER	B-7012
C2	B C ANT TRIMMER	A-14088-1
C3	POL ANT TRIMMER	A-14088-1
C4	S W ANT TRIMMER	A-14088-1
C5	B C DET TRIMMER	A-14088-1
C6	POL DET TRIMMER	A-14088-1
C7	S W DET TRIMMER	A-14088-1
C8	B C OSC TRIMMER	A-14088-1
C9	POL OSC TRIMMER	A-14088-1
C10	S W OSC TRIMMER	A-14088-1
C11	B C OSC PADDER	A-14088-1
C12	POL OSC PADDER	A-14088-2
C13	S W OSC PADDER	A-14088-3
C14	00045 MFD MOLDED	C 720 344
C15	0011 MFD MOLDED	C 720-338
C16	.00365 MFD MOLDED	C 720-341
C17	12 MMFD COUPLER	C 720 354
C18	05 MFD 200 V	C 720-82
C19	05 MFD 400 V	C 720-57
C20	1 MFD 200 V	C 720-60
C21	00025 MFD MOLDED	C 720-319
C22	1 MFD 200 V	C 720 60
C23	00005 MFD MOLDED	C 720 320
C24	.05 MFD 200 V	C 720-82
C25	1 MFD 400 V	C-720-61
C26	05 MFD 400 V	C 720 57
C27	2 MFD 400 V	C-720-74
C28	1 MFD 200 V	C 720-60
C29	00005 MFD MOLDED	C 720-320
C30	00005 MFD MOLDED	C 720-320
C31	00007 MFD MOLDED	C 720-349
C32	00025 MFD MOLDED	C 720-315
C33	0001 MFD MOLDED	C 720-325
C34	2 MFD 200 V	C 720-87
C35	1 MFD 200 V	C 720-60
C36	.05 MFD 200 V	C 720-82
C37	00025 MFD MOLDED	C-720-319
C38	1 MFD 200 V	C-720-60
C39	05 MFD 400 V	C-720-57
C40	05 MFD 400 V	C 720-57
C41	1 MFD 200 V	C 720 60
C42	006 MFD 600 V	C-720-154
C43	06 MFD 600 V	C-720-155
C44	25 MFD 350 V ELECT	A-14115
C45	16 MFD 475 V ELECT	A-14122
C46	25 MFD 400 V ELECT	A-14516
C47A & C47B	No1 I F TRIMMER	A-14573
C48A & C48B	No2 I F TRIMMER	A-14573
C49A & C49B	No3 I F TRIMMER	A-14440
C30 C31 & C32	I 5-60 MMFD TRIMMER II 5-60 MMFD TRIMMER III 35-275 MMFD TRIMMER IV 35-275 MMFD TRIMMER V 158-450 MMFD TRIMMER VI 158-480 MMFD TRIMMER	A-14468
C54	0001 MFD MOLDED	C 720-325

R1	1 MEGOHM	25 W	C-2795-98-B
R2	470,000 Ω	25 W	C-2795-94-B
R3	100,000 Ω	25 W	C-2795-86-B
R4	100,000 Ω	25 W	C-2795-86-B
R5	22,000 Ω	5 W	C-2796-78-C
R6	22,000 Ω	5 W	C-2796-78-C
R7	39,000 Ω	5 W	C-2796-81-A
R8	56,000 Ω	25 W	C-2795-85-B
R9	18,000 Ω	5 W	C-2799-77-A
R10	8,200 Ω	2 W	C-2798-73-A
R11	390 Ω	25 W	C-2795-57-B
R12	470,000 Ω	25 W	C-2795-94-B
R13	1 MEGOHM	25 W	C-2795-98-B
R14	1000 Ω	25 W	C-2795-62-B
R15	100,000 Ω	25 W	C-2795-86-B
R16	470,000 Ω	25 W	C-2795-94-B
R17	470,000 Ω	25 W	C-2795-94-B
R18	47,000 Ω	25 W	C-2795-82-B
R19	180,000 Ω	25 W	C-2795-89-B
R20	250,000 Ω VOLUME CONTROL		A-14016-A
R21	1 MEGOHM	25 W	C-2795-98-B
R22	220,000 Ω	25 W	C-2795-90-B
R23	220,000 Ω	25 W	C-2795-90-B
R24	220,000 Ω	25 W	C-2795-90-B
R25	470,000 Ω	25 W	C-2795-94-B
R26	220,000 Ω	25 W	C-2795-90-B
R27	180 Ω	2 W	C-2798-38-A
R28	24 Ω	25 W	C-2795-120-B
R29	27 Ω	25 W	C-2795-43-B
R30	10,000 Ω	2 W	C-2798-74-A
R31	.5 MEG TONE CONT & SWITCH		A-14112-A

L1	B C ANT COIL	A-14243-1
L2	POL ANT COIL	A-14243-2
L3	S W ANT COIL	A-14243-3
L4	B C DET COIL	A-14242-6
L5	POL DET COIL	A-14242-2
L6	S W DET COIL	A-14242-3
L7	B C OSC COIL	A-14241-6
L8	POL OSC COIL	A-14241-2
L9	S W OSC COIL	A-14241-3
L10	No1 I F COIL	A-12064-18
L11	No2 I F COIL	A-12064-18
L12	No3 I F COIL	A-14443
	No FROM BACK OF SET	
S1	ANT PRI SECTION	
S2	ANT SEC SECTION	
S3	R F PRI SECTION	
S4	R F SEC SECTION	
S5	OSC PRI SECTION	
S6	OSC SEC. SECTION	

SCHEMATIC DIAGRAM
SPARTON SUPERHETERODYNE MODEL 518, 518X, 558 & 558X 568
INTERMEDIATE FREQUENCY 456 K.C.

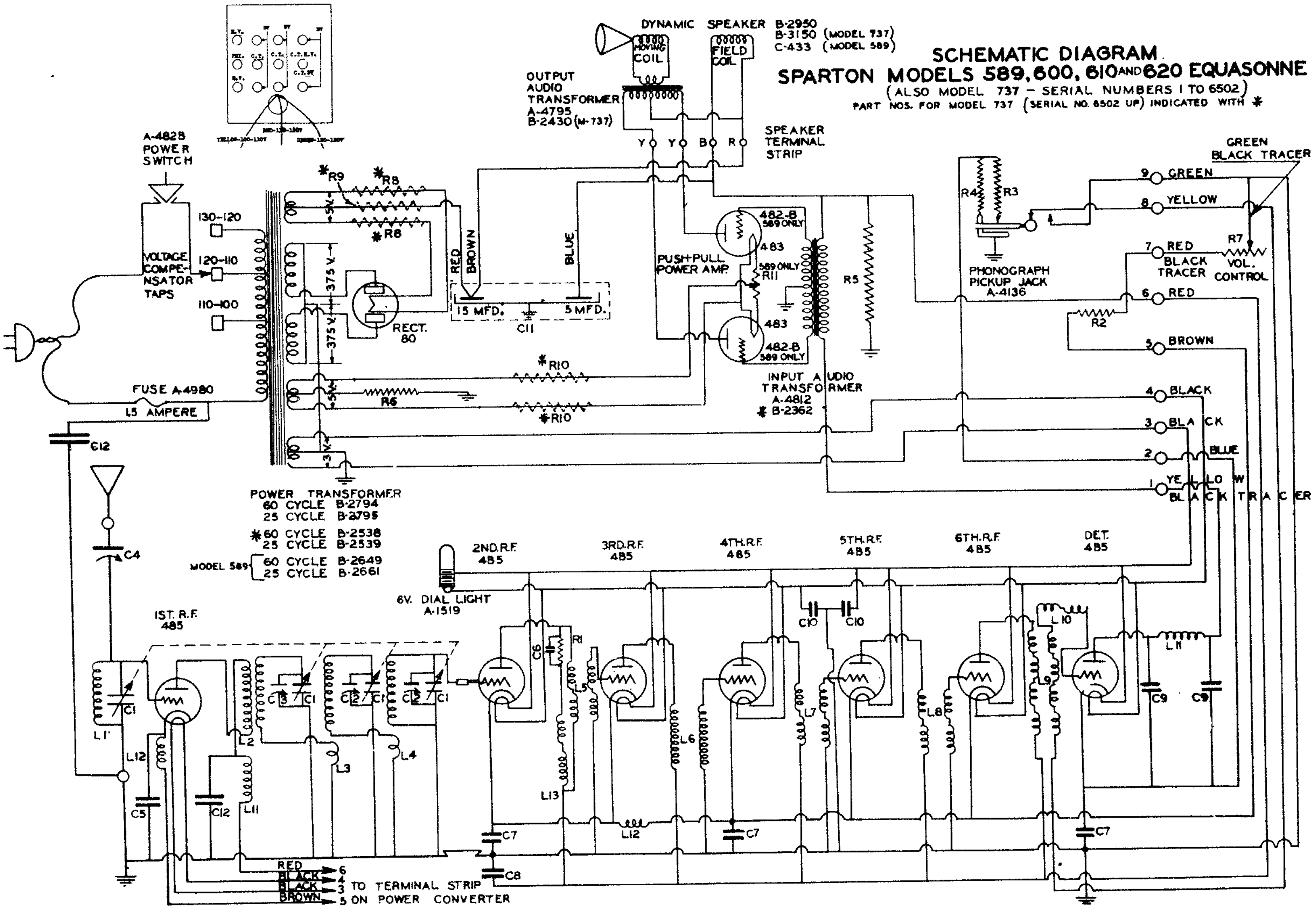
TOP VIEW OF ALL SOCKET CONNECTIONS



C1	VARIABLE CONDENSER			B-7096
C2	NO. 1 I.F. TRIMMER			A-14404
C3	NO. 2 I.F. TRIMMER			A-14399
C4	B.C. OSC. TRIMMER			A-14200-2
C5	B.C. OSC. PADDER			
C6	B.C. ANT. TRIMMER			A-14200-1
C7	S.W. ANT. TRIMMER			
C8	50	MMFD.	MOLDED	C-720-320
C9	250	MMFD.	MOLDED	C-720-327
C10	.05	MFD.	200 V	C-720-52
C11	.05	MFD.	400 V.	C-720-57
C12	250	MMFD.	MOLDED	C-720-324
C13	.02	MFD.	400 V	C-720-32
C14	.1	MFD.	200 V.	C-720-60
C15	.2	MFD.	400 V.	C-720-74
C-16	250	MMFD.	MOLDED	C-720-324
C17	.1	MFD	400 V.	C-720-61
C18	.05	MFD.	400 V.	C-720-57
C19	.003	MFD.	600 V	C-720-7
C20	.03	MFD.	600 V.	C-720-12
C21	6-8-10 MFD. ELECT.			A-14428
C22	I.F. REJECTOR TRIMMER			A-14398
C23	1 MMF NEUTRALIZING COND.			

R1	500,000 Ω	VOL. CONTROL	A-14216-A
R2	56,000 Ω	.25 W.	C-2795-83-B
R3	22,000 Ω	.5 W.	C-2796-78-A
R4	1 MEGOHM	.25 W.	C-2795-31B
R5	560,000 Ω	.25 W.	C-2795-95B
R6	1 MEGOHM	TONE CONTROL	A-14217-A
R7	270 Ω	.25 W.	C-2795-55B
R8	270 Ω	.25 W.	C-2795-55D
R9	15,000 Ω	1 W.	C-2797-76A
R10	15,000 Ω	3 W.	C-2799-76-A
R11	56,000 Ω	.25 W.	C-2795-83 B
R12	270,000 Ω	.25 W.	C-2795-91B
R13	330,000 Ω	.25 W	C-2795-28B
R14	470 Ω	1 W.	C-2797-58-A

SCHEMATIC DIAGRAM
SPARTON MODELS 589, 600, 610 AND 620 EQUASONNE
(ALSO MODEL 737 – SERIAL NUMBERS 1 TO 6502)
PART NOS. FOR MODEL 737 (SERIAL NO. 6502 UP) INDICATED WITH *



C1	VARIABLE CONDENSER	
C2	DOUBLE EQ. CONDENSER	A-4713
C3	SINGLE EQ. CONDENSER	A-4712
C4	ANT. COMPENSATOR	A-4636
C5	.2 MFD.	A-4998
C6	.000023 MFD.	A-4354
C7	1 MFD.	A-5032
C8	.25 MFD.	A-5033
C9	.002 MFD	A-3217
C10	.2 MFD.	A-742D

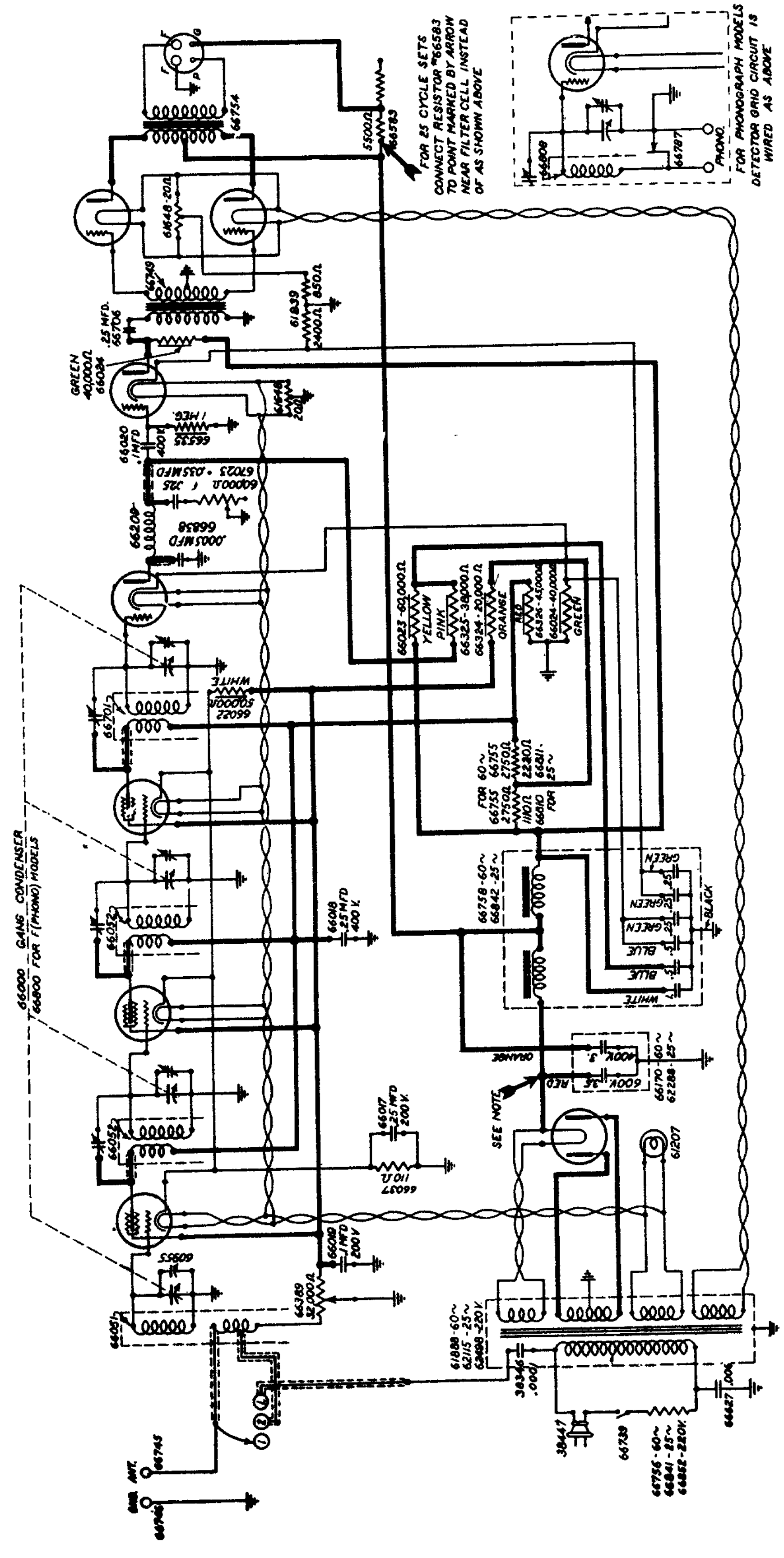
C11	FILTER CONDENSER	B-2948
C12	.006 MFD.	A-4434

R1	2,800 Ω	.5 W.	A-4353
R2	110 Ω	1 W.	A-4915
R3	1,000 Ω	2 W.	A-3397
R4	20,000 Ω	2 W.	A-2934
R5	15,000 Ω	5 W.	A-4107
R6	1250 Ω	3 W.	A-4974
R7	15,000 Ω	VOL. CONT.	A-4770

L1	1ST. TUNING COIL	A-4600
L2	2ND. TUNING COIL	A-4711
L3	3RD. TUNING COIL	A-4758
L4	4TH. TUNING COIL	A-4759
L5	COUPLING COIL	A-4826
L6	2ND. R.F. TRANS.	A-2963-W
L7	3RD. R.F. TRANS.	A-2965-W
L8	4TH. R.F. TRANS.	A-2967-W
L9	5TH. R.F. TRANS.	A-2961-W
L10	FREE GRID COIL	A-3238-W
L11	DET. PLATE CHOKE	A-3506
L12	CATHODE CHOKE	A-3332
L13	1ST. PLATE CHOKE	A-3239-W

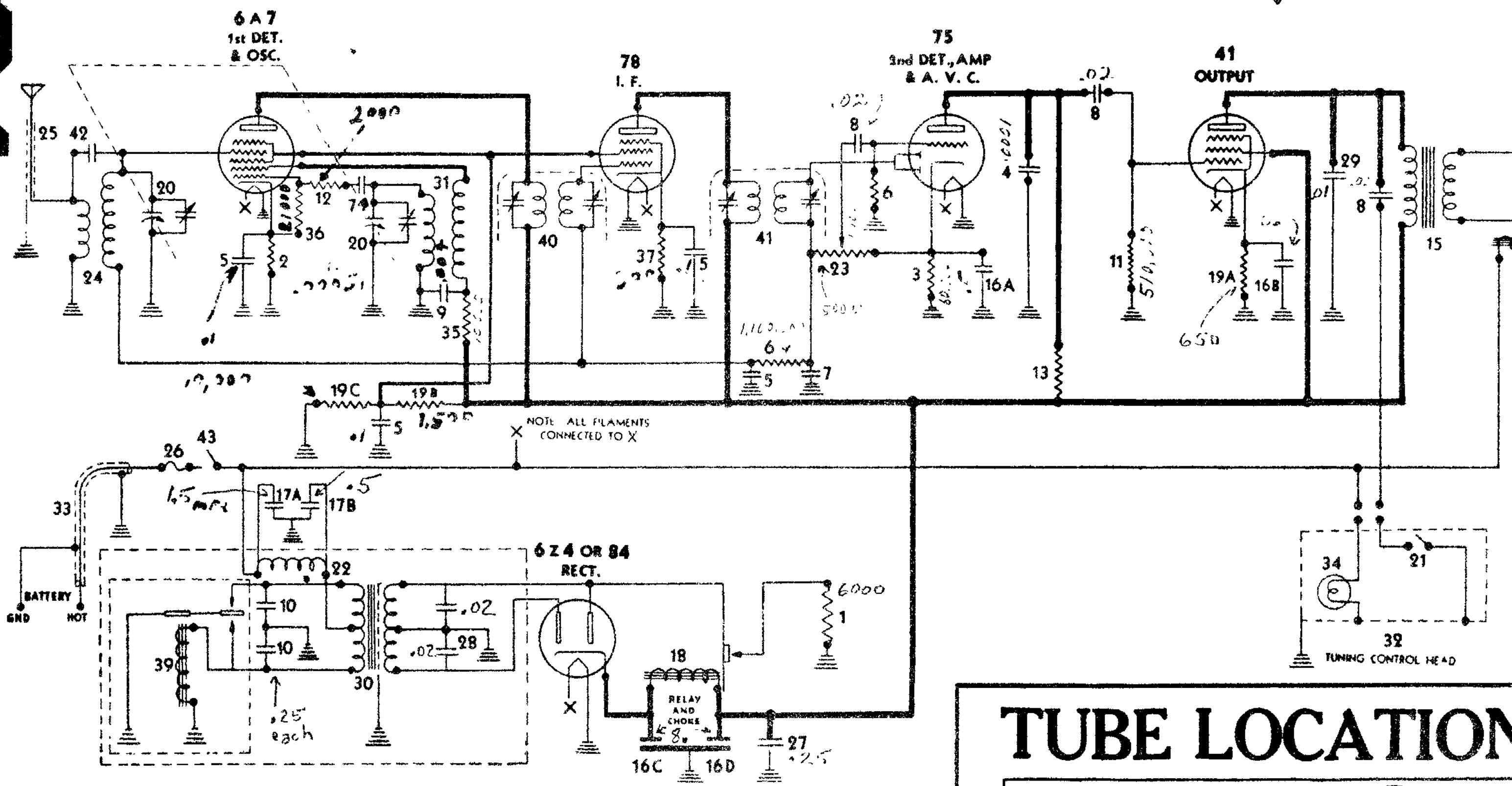
* PARTS SHOWN DOTTED FOR MODEL 737 ONLY

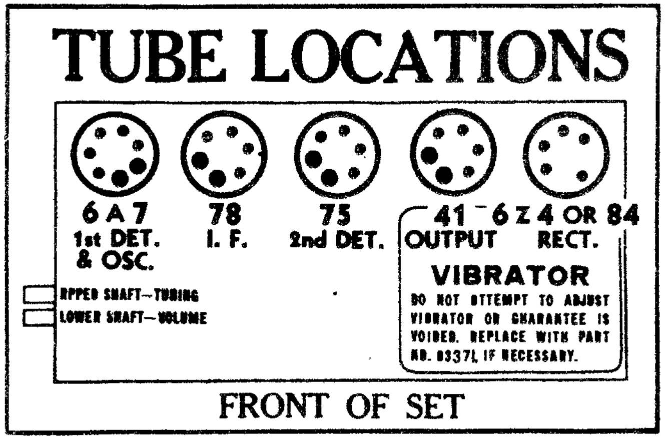
R8	.67 Ω	2.5 W.	A-6889
R9	1,300 Ω	15 W.	A-6888
R10	.54 Ω	2.5 W.	A-6890
R11	.6 Ω	(589 ONLY)	A-4397



Stewart-Warner Model R-100-A, B, and E, Alternating Current Sets

STEWART-WARNER MODEL 1121 AUTO RADIO (112 CHASSIS)




TUBE LOCATIONS

VIBRATOR

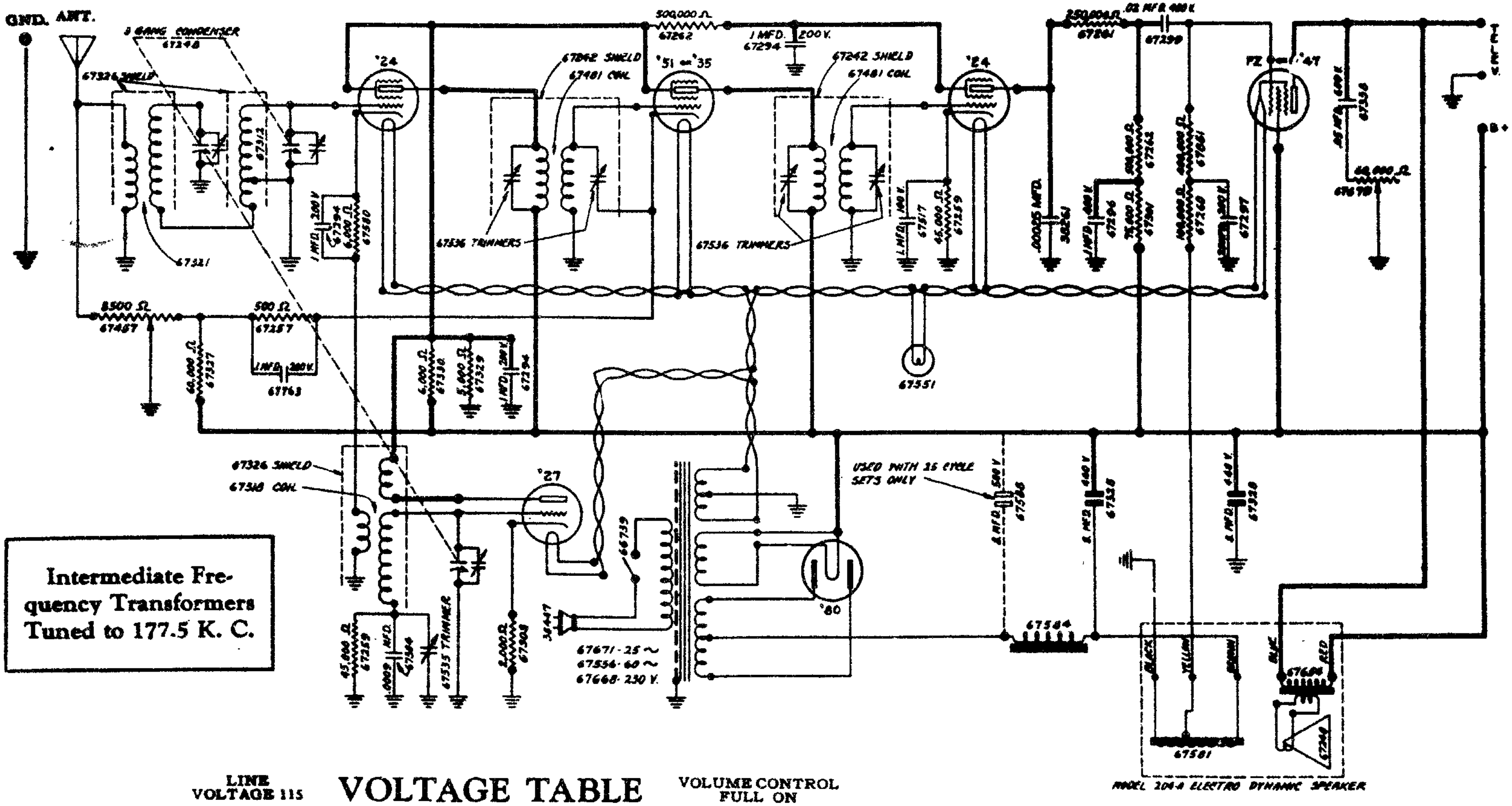
DO NOT ATTEMPT TO ADJUST VIBRATOR OR GUARANTEE IS VOIDED. REPLACE WITH PART NO. 83371 IF NECESSARY.

FRONT OF SET

Tube Type	Position in Circuit	Filament Voltage	Plate Voltage	Screen Grid Voltage	Cathode (Bias) Voltage
6A7	1st Det. and Osc.	5.5	144	70	1.4
78	I. F.	5.5	144	70	2.0
75	2nd Det.	5.5	60	—	1.0
41	Output	5.5	142	144	9.0
84	Rect.	5.5	—	—	179

I. F. FREQUENCY 456 K. C.

Circuit Data of Stewart-Warner Models R-102-A, B & E.*



Intermediate Frequency Transformers Tuned to 177.5 K. C.

LINE VOLTAGE 115

VOLTAGE TABLE

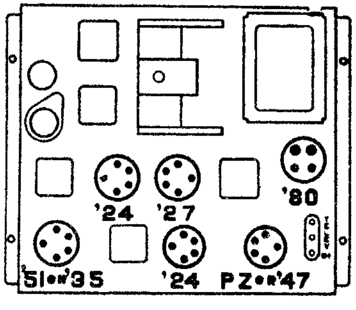
VOLUME CONTROL FULL ON

Type of Tube	Tube Circuit	Filament Voltage	Plate Voltage	Screen Grid Voltage	Bias Voltage
'24	1st Det.	2.45	250	95	6.5
'27	Osc.	2.45	95		9
'51	I. F.	2.40	250	95	3
'24	2nd Det.	2.45	70	30	7
P. Z. or '47	Output	2.45	230	250	15 ‡
'80	Rect.	4.8	170		

All D. C. voltages measured with respect to ground, using high resistance voltmeter of 1000 ohms per volt. Readings will vary, depending upon voltage range of meter, being higher for higher range instruments. This variation is most marked for second detector screen grid and plate voltages.

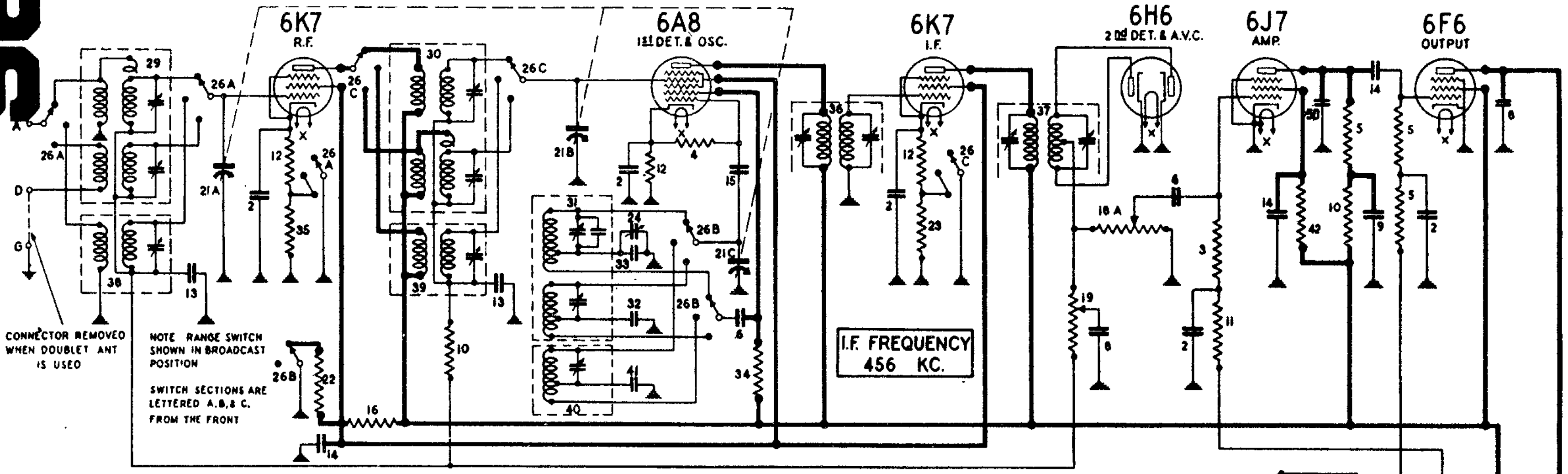
‡ This reading obtained between ground and yellow speaker lead. Direct reading from grid to ground or reading taken with a set tester will show about 3 volts because of high resistance in grid circuit.

FRONT OF SET



TUBE LOCATIONS

STEWART-WARNER MODEL R-136 CHASSIS (RECEIVER MODELS 1361 to 1369)

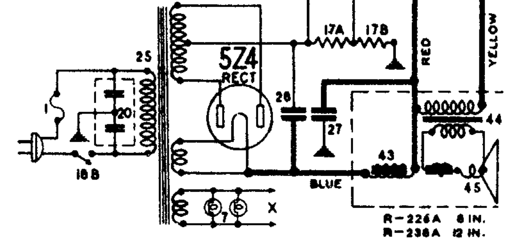


CONNECTOR REMOVED WHEN DOUBLET ANT IS USED

NOTE RANGE SWITCH SHOWN IN BROADCAST POSITION

SWITCH SECTIONS ARE LETTERED A, B, & C. FROM THE FRONT

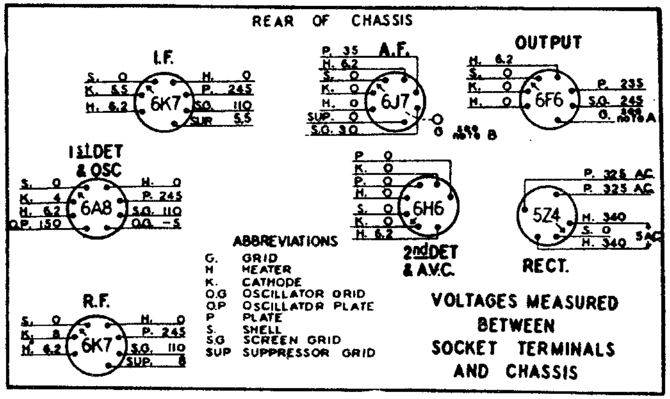
I.F. FREQUENCY 456 KC.



SOCKET VOLTAGES

LINE VOLTAGE 115 VOLTS Volume Control on Full ANTENNA GROUNDED

RANGE SWITCH SET ON BROADCAST POSITION DIAL TUNED TO 540 KC.



ABBREVIATIONS

G. GRID
H HEATER
K. CATHODE
O.G OSCILLATOR GRID
O.P OSCILLATOR PLATE
P PLATE
S. SHELL
S.G SCREEN GRID
SUP SUPPRESSOR GRID

VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND CHASSIS

IMPORTANT: Use a high resistance meter of 1000 ohms per volt.

NOTE A: The grid bias on the 6F6 output tube is —16.5 volts, measured across the resistors 17A and 17B.

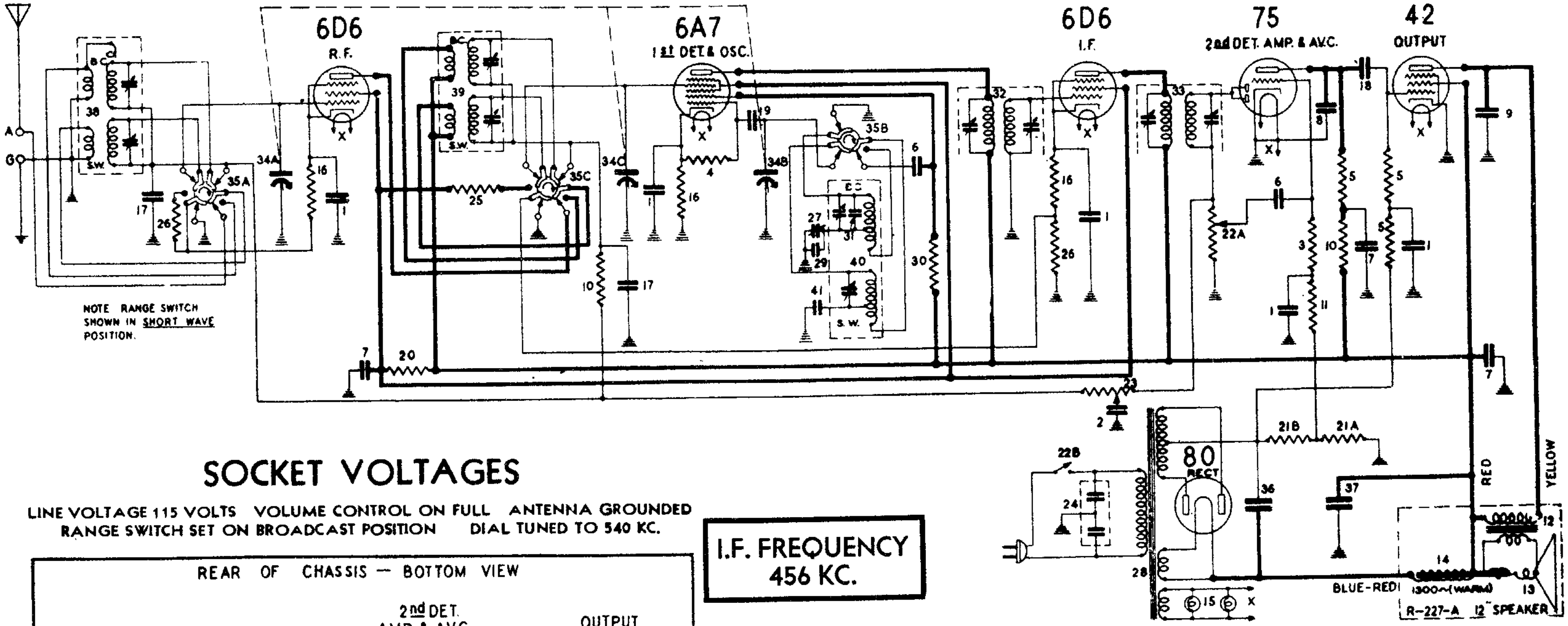
NOTE B: The grid bias on the 6J7 amplifier tube is —1.7 volts measured across resistor 17B.

Speaker field resistance is 1300 ohms with coil warm.

R-136 PARTS LIST

Diagram No.	Part No.	DESCRIPTION
1	38841	Fuse, 1 amp.
2	81630	.1 mfd. 175 volt paper condenser
3	83072	510,000 ohm ¼ watt carbon resistor
4	83080	51,000 ohm ¼ watt carbon resistor
5	83082	260,000 ohm ¼ watt carbon resistor
6	83219	.01 mfd. 600 volt paper condenser
7	83278	Dial lamp 6.3 volt
8	83706	.006 mfd. 600 volt paper condenser
9	83974	.1 mfd. 200 volt paper condenser
10	84198	110,000 ohm ¼ watt carbon resistor
11	84235	1.1 megohm ¼ watt carbon resistor
	84312	Output transformer (R-225-A 8" spkr.)
	84504	Diaphragm and shell assembly (R-225-A 8 inch speaker)
	84505	Field coil assembly (R-225-A 8" spkr.)
12	84888	300 ohm ½ watt wire wound resistor
13	85053	.05 mfd. 100 volt paper condenser
14	85059	.05 mfd. 300 volt paper condenser
15	85061	.000051 mfd. mica condenser
16	85063	15,000 ohm 2 watt carbon resistor
17-A 17-B	85067	275 ohm wire wound bias resistor 25 ohm wire wound bias resistor } one unit
18-A 18-B	85073	250,000 ohm volume control Line switch } one unit
19	85074	500,000 ohm tone control
20	85075	Dual .01 mfd. 750 volt A.C. paper cond.
21A to C	85084	3 Gang variable condenser
22	85116	25,000 ohm ½ watt carbon resistor
23	85117	1,000 ohm ½ watt carbon resistor
24	85285	Padding trimmer
25	85428	Power trans. 115 V 60 cycle (136-A only) (See 85760 for other voltages and frequencies)
26A to C	85429	Three deck range switch
27	85430	16 mfd. 300 volt electrolytic condenser
28	85431	16 mfd. 400 volt electrolytic condenser
29	85432	Antenna coil and shield assembly (B & No. 3 S.W.)
30	85433	R. F. coil and shield assembly (B & No. 3 S.W.)
31	85434	Oscillator coil and shield assembly (B & No. 3 S.W.)
32	85440	.00351 mfd. mica condenser
33	85441	.00042 mfd. mica condenser
34	85442	21,000 ohm ½ watt carbon resistor
35	85443	2,000 ohm ½ watt carbon resistor
36	85452	1st I.F. transformer
37	85453	2nd I.F. transformer
38	85455	Antenna coil assembly (No. 2 S.W.)
39	85456	R.F. coil assembly (No. 2 S.W.)
40	85457	Oscillator coil assembly (No. 2 S.W.)
41	85467	.00137 mfd. mica condenser
42	85472	1.6 megohm ¼ watt carbon resistor
43	85478	Field coil assembly (R-236-A spkr.) (See 84505 for R-225-A 8" spkr.)
44	85482	Output transformer (R-236-A 12" spkr.) (See 84312 on R-225-A 8" spkr.)
45	85592	Diaphragm and shell assembly (R-236-A 12" spkr.) (See 84504 for R-225-A 8 inch speaker)
50	84370	.00011 mfd. mica condenser

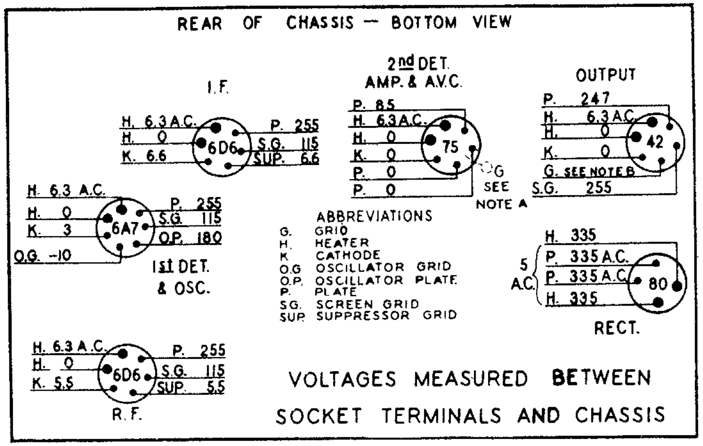
STEWART-WARNER MODEL R-134 CHASSIS (RECEIVER MODELS 1341 to 1349)



SOCKET VOLTAGES

LINE VOLTAGE 115 VOLTS VOLUME CONTROL ON FULL ANTENNA GROUNDED
RANGE SWITCH SET ON BROADCAST POSITION DIAL TUNED TO 540 KC.

I.F. FREQUENCY 456 KC.



ABBREVIATIONS

G. GRID
H. HEATER
K CATHODE
O.G OSCILLATOR GRID
O.P. OSCILLATOR PLATE
P. PLATE
S.G. SCREEN GRID
SUP. SUPPRESSOR GRID

VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND CHASSIS

IMPORTANT: Use a high resistance meter of 1000 ohms per volt.

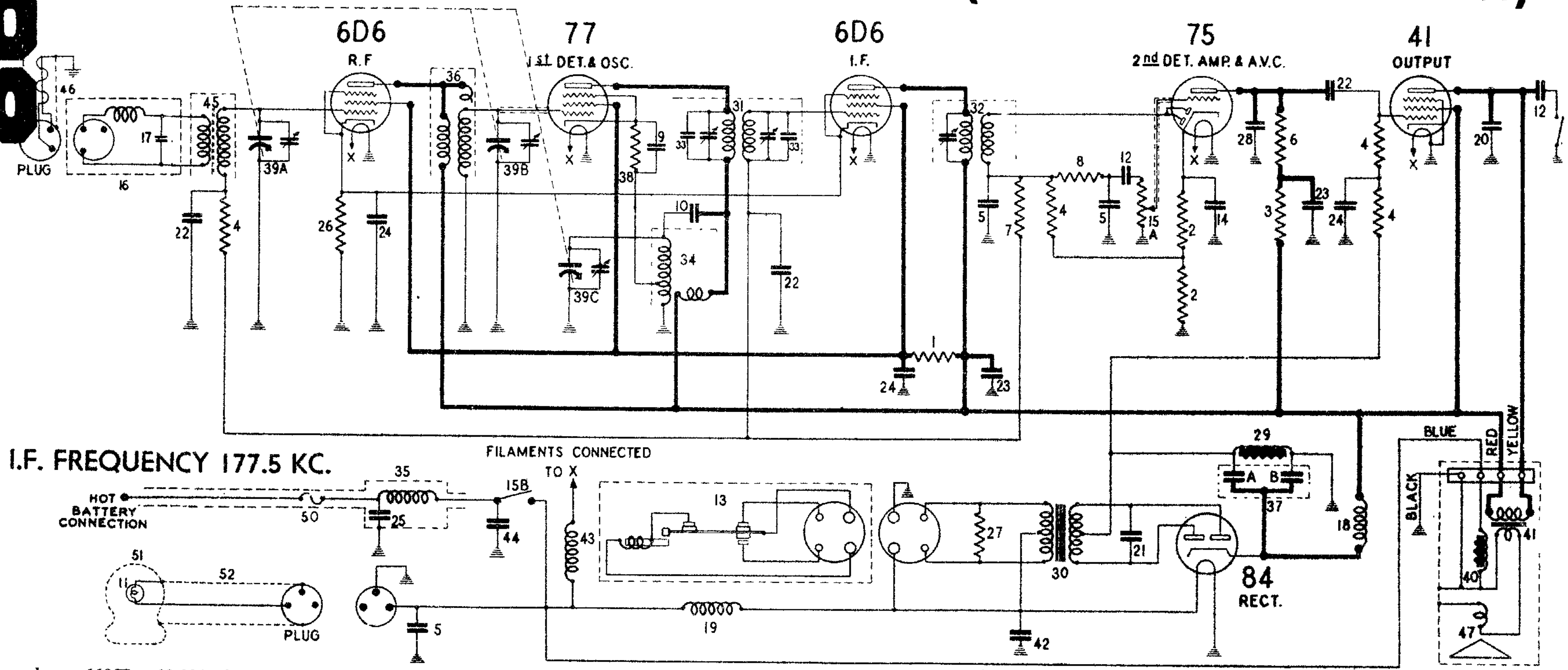
NOTE A: The grid bias for the 75 triode section is —1.2 volts measured across resistor 21A.

NOTE B: The grid bias on the 42 output tube is —16 volts. measured across the resistors 21A and 21B.

MODEL R-134 PARTS LIST

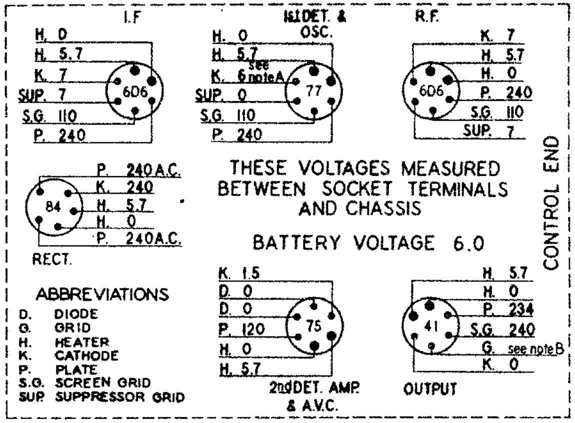
Diag. No.	Part No.	DESCRIPTION
1	81630	.1 mfd. 175 volt paper condenser
2	83011	.004 mfd. 600 volt paper condenser
3	83072	510,00 ohm ¼ watt carbon resistor
4	83080	51,000 ohm ¼ watt carbon resistor
5	83082	260,000 ohm ¼ watt carbon resistor
6	83219	.01 mfd. 600 volt paper condenser
7	83440	.1 mfd. 400 volt paper condenser
8	83539	260 mmfd. mica condenser
9	83706	.006 mfd. 600 volt paper condenser
10	84198	110,000 ohm ¼ watt carbon resistor
11	84235	1.1 megohm ¼ watt carbon resistor
12	84312	Output transformer (on R-227-A Spkr.)
13	84506	Diaphragm and shell assembly for (R-227-A Spkr.)
14	84507	Field coil and housing for (R-227-A Spkr.)
15	84759	Pilot lamp, 6-8 volt
16	84888	300 ohm ½ watt W.W. resistor
17	85053	.05 mfd. 100 volt paper condenser
18	85059	.05 mfd. 300 volt paper condenser
19	85061	51 mmfd. mica condenser
20	85063	15,000 ohm 2 watt carbon resistor
21A 21B	85067	20 ohm 220 ohm } Bias resistor (wire wound)
22A 22B	85073	Volume Control (250,000 ohm) Line Switch
23	85074	Tone Control (500,000 ohm)
24	85075	Dual .01 mfd. 750 volt paper condenser.
25	85116	25,000 ohm ½ watt carbon resistor
26	85117	1,000 ohm ½ watt carbon resistor
27	85285	Padding trimmer
28	85428	Power transformer, 115 volt 60 cycle
29	35441	420 mmfd. mica condenser
30	85442	21,000 ohm ½ watt carbon resistor
31	85454	11 mmfd. mica condenser
32	85788	1st I.F. transformer
33	85789	2nd I.F. transformer
34 A to C	85790	Three gang condenser
35 A to C	85791	Range switch
36	85792	16 mfd. 475 volt electrolytic condenser
37	85793	16 mfd. 475 volt electrolytic condenser
38	85829	Antenna coil and shield assembly
39	85830	R.F. coil and shield assembly
40	85831	Oscillator coil and shield assembly
41	85837	.00194 mfd. mica condenser

STEWART-WARNER MODEL R-160 AUTO RADIO CHASSIS (RECEIVER MODELS 1601 to 1609)



I.F. FREQUENCY 177.5 KC.

1	66023	60.000 ohm 1 watt carbon resistor
2	67303	2.000 ohm ¼ watt carbon resistor
3	83080	51.000 ohm ¼ watt carbon resistor
4	83082	260,000 ohm ¼ watt carbon resistor
5	83539	260 mmfd. mica condenser
48	83777	Battery cable and fuse housing
6	84198	110,000 ohm ¼ watt carbon resistor
7	84235	1.1 megohm ¼ watt carbon resistor
8	84238	11,000 ohm ¼ watt carbon resistor
9	84282	.001 mfd. mica condenser
10	84833	70 mmfd. mica condenser
11	85296	Pilot lamp 6-8 volt (bayonet base)
12	88026	.02 mfd. 400 volt paper condenser
49	88054	Tone control switch
13	88156	Vibrator
14	88170	10 mfd. 25 volt electrolytic condenser
15A 15B	88171	Volume control 500,000 ohm Line switch
16	88172	Antenna Filter
17	88173	50 mmfd. mica condenser
18	88181	R. F. choke coil
19	88183	R. F. choke coil (to vibrator)
20	88185	.006 mfd. 600 volt paper condenser
21	88187	.01 mfd. 1500 volt paper condenser
22	88189	.05 mfd. 200 volt paper condenser
23	88191	.1 mfd. 300 volt paper condenser
24	88193	.25 mfd. 150 volt paper condenser
25	88195	.5 mfd. 150 volt paper condenser
26	88203	600 ohm ¼ watt carbon resistor
27	88204	210 ohm ½ watt carbon resistor
28	88205	.0021 mfd. mica condenser
29	88210	Filter choke
30	88213	Power transformer
31	88222	1st I.F. transformer
32	88223	2nd I.F. transformer
33	88233	110 mmfd. mica condenser
34	88234	Oscillator coil and shield assembly
35	88239	"A" filter
36	88250	R.F. coil and shield assembly
37A 37B	88256	Electrolytic condenser 4 mfd. 350 volt Electrolytic condenser 8 mfd. 350 volt
38	88257	9,500 ohm ¼ watt carbon resistor
39A to C	88258	Three gang variable condenser
40	88274	Field coil and housing (for R-245-A spkr.)
41	88276	Output transformer
42	88285	1.25 mfd. 150 volt paper condenser
43	88289	R.F. choke (to filaments)
44	88298	.25 mfd. 150 volt paper condenser (low reactance)
45	88312	Antenna coil and shield assem. (iron core)
46	88327	Antenna cable and plug
47	88328	Diaphragm and shell assem. (R-245-A spkr.)
48	83777	Battery cable and fuse housing
49	88054	Tone control switch
50	88365	Fuse, 10 amperes
51	88730	Control head less shafts
52	88738	Pilot light cable with plug, 31"

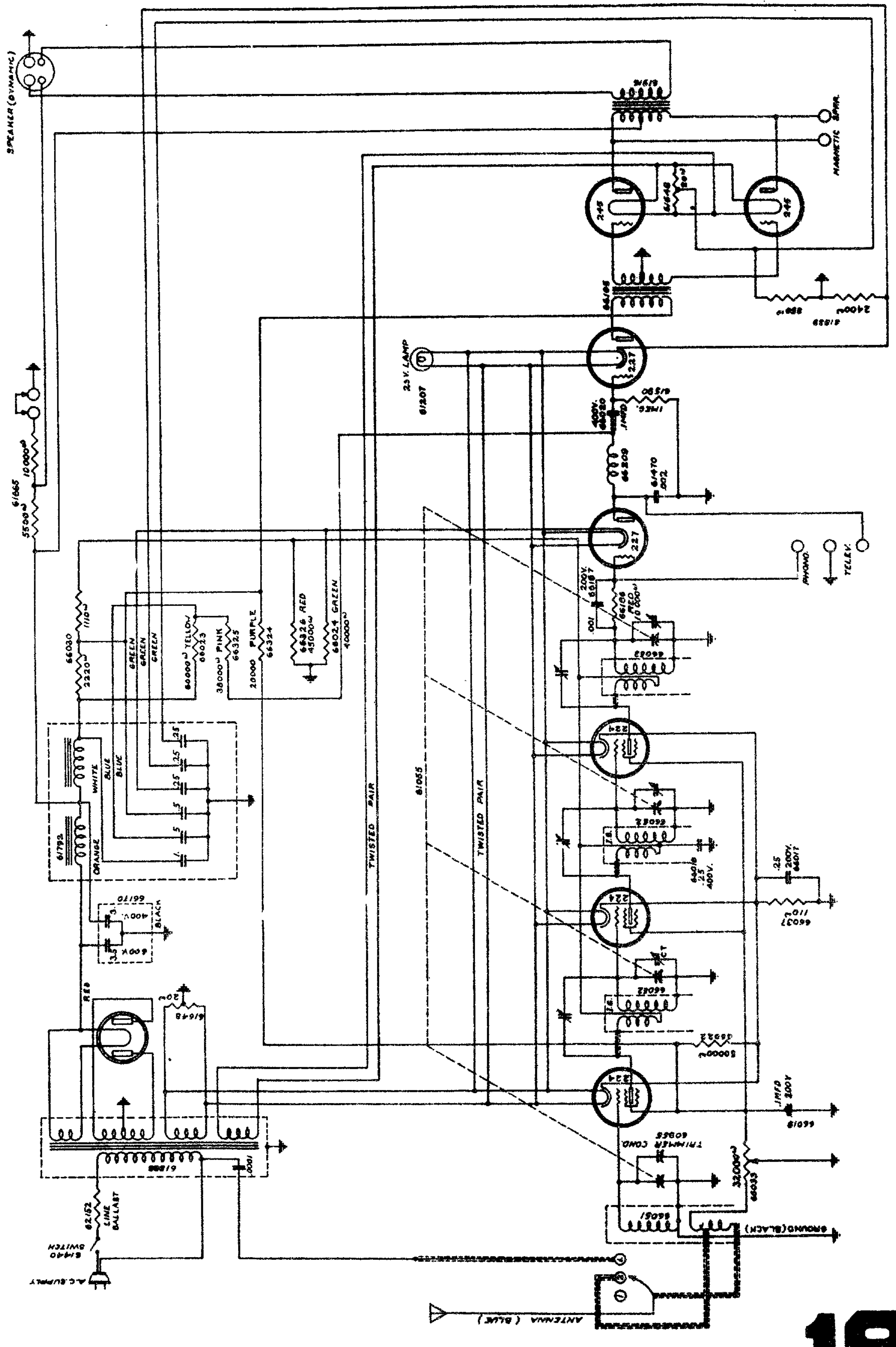


THESE VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND CHASSIS

BATTERY VOLTAGE 6.0

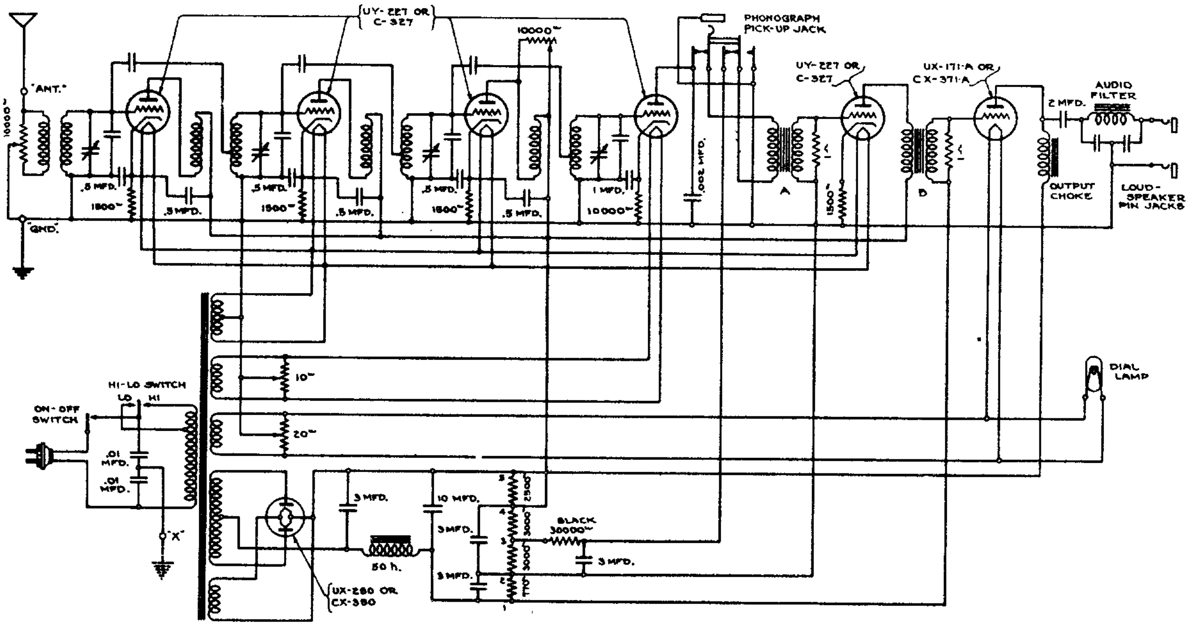
ABBREVIATIONS

D.	DIODE
G.	GRID
H.	HEATER
K.	CATHODE
P.	PLATE
S.G.	SCREEN GRID
SUP.	SUPPRESSOR GRID



Stewart-Warner 950 Series A. C. Radio Receivers

SCHEMATIC DIAGRAM



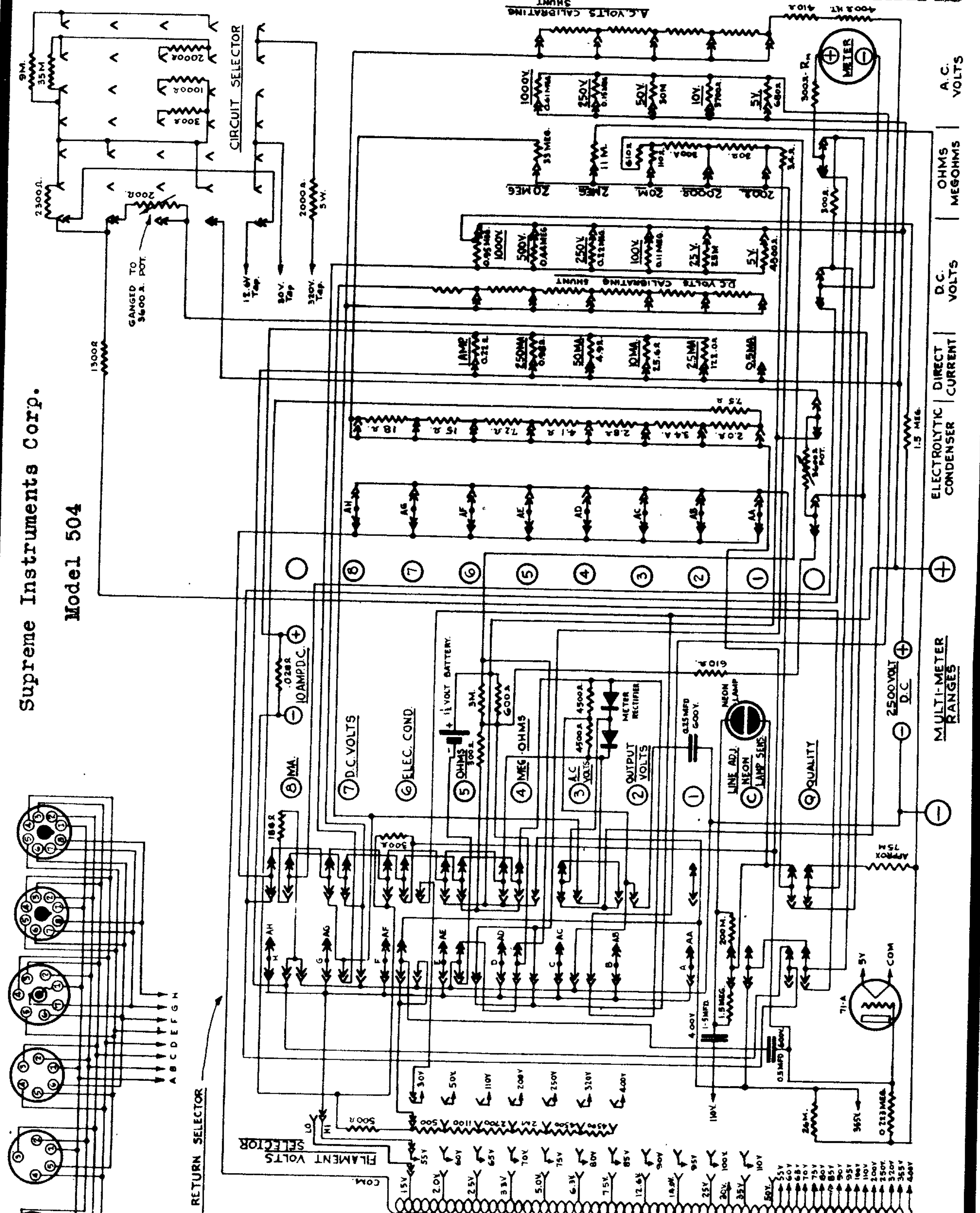
STROMBERG-CARLSON NOS. 635 AND 636 RECEIVERS

The following table shows how the filament, plate and grid voltages vary with different line voltages, in the No. 635 receiver. The plate voltages are measured between tube plates and Tap No. 2 of the voltage divider. The grid voltages of the heater type tubes are measured across the cathode resistors; and that of the audio output tube is measured between Taps No. 1 and No. 2 of the voltage divider.

Line Voltage "HI-LO" Switch	105 "LO"	110 "LO"	115 "LO"	115 "HI"	120 "HI"	125 "HI"
UX-280						
Filament Voltage (RMS)	4.5	4.75	5.0	4.5	4.7	4.93
Voltage per anode (RMS)	236.0	248.0	259.0	236.0	248.0	258.0
Amplifiers						
Heater Voltage (RMS)	2.17	2.27	2.38	2.16	2.26	2.35
Plate Voltage	106.0	110.0	115.0	106.0	110.0	115.0
Grid Voltage	— 5.0	— 5.5	— 5.75	— 4.7	— 5.2	— 5.6
Detector						
Heater Voltage (RMS)	2.11	2.22	2.32	2.1	2.2	2.3
Plate Voltage	39.0	40.0	42.0	38.0	40.0	41.0
Grid Voltage	— 3.25	— 3.5	— 3.75	— 3.25	— 3.5	— 3.75
Audio Output Tube						
Filament Voltage (RMS)	4.5	4.75	5.0	4.53	4.72	4.94
Plate Voltage	167.0	175.0	184.0	165.0	174.0	182.0
Grid Voltage	—37.0	—40.0	—41.0	—36.0	—40.0	—41.0

NOTE—The grid voltage on the 1st audio tube will be slightly lower than that on the R. F. amplifier tubes, due to the drop in the secondary of the 1st audio transformer.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



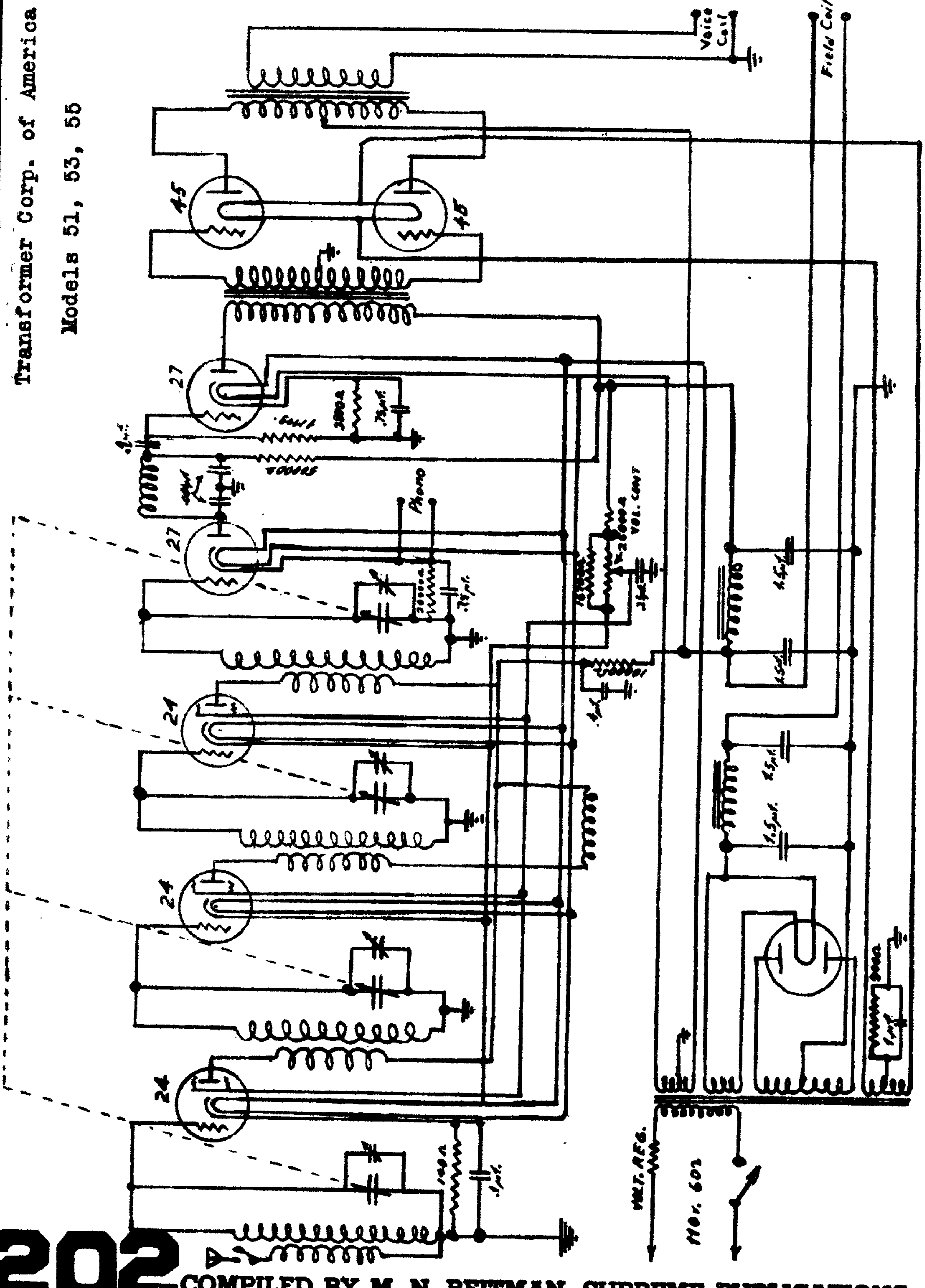
Supreme Instruments Corp.

Model 504

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

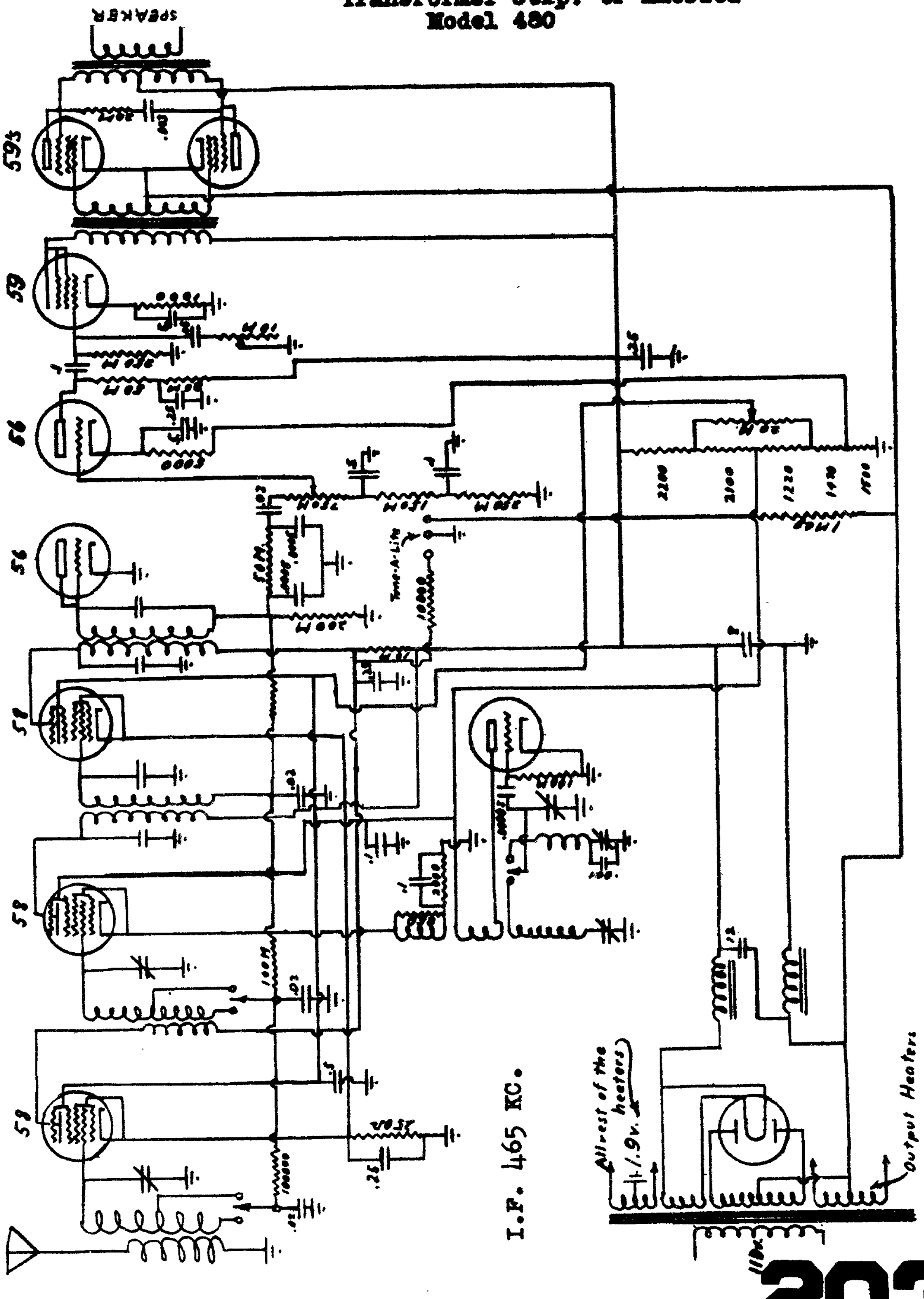
Transformer Corp. of America

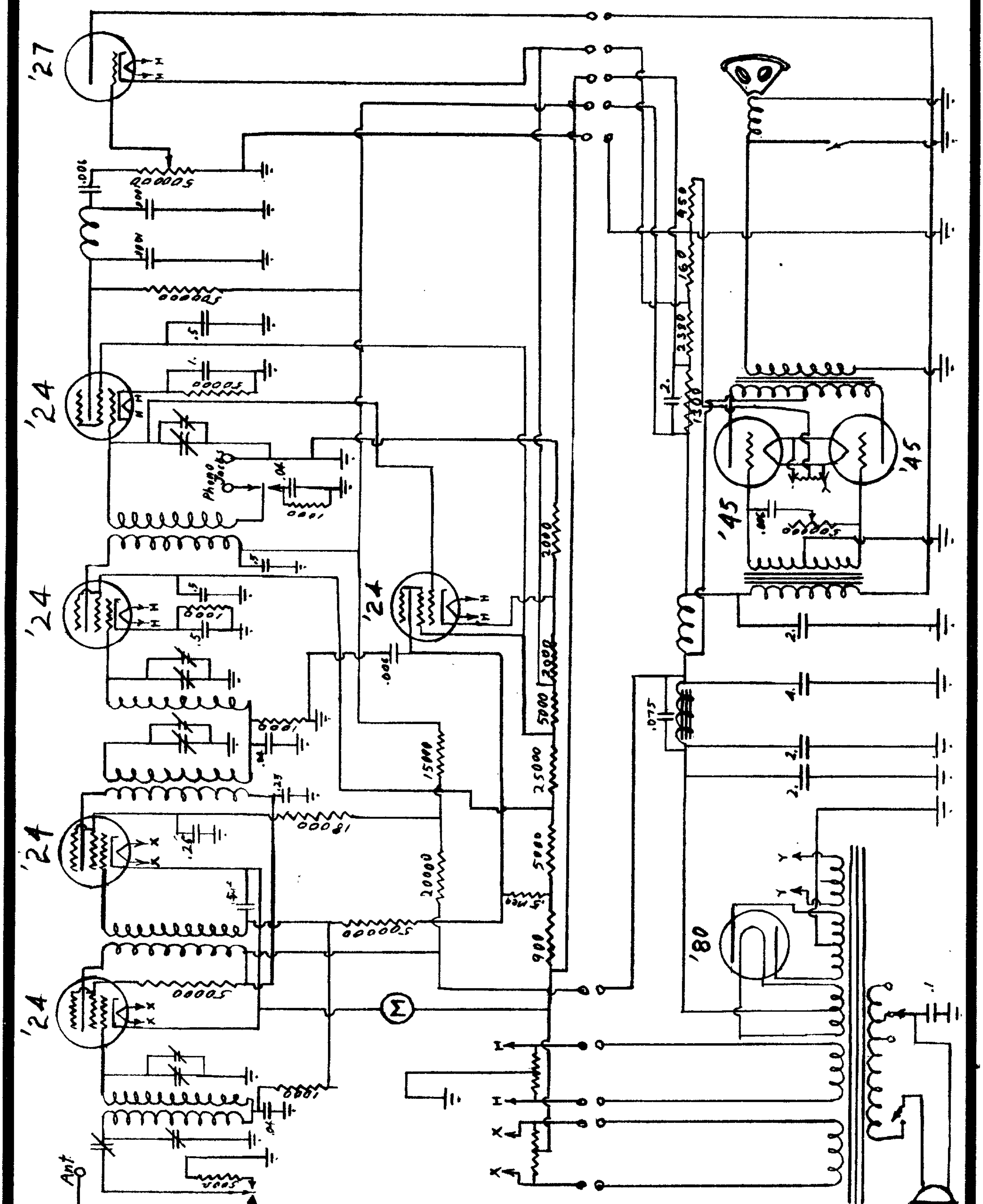
Models 51, 53, 55



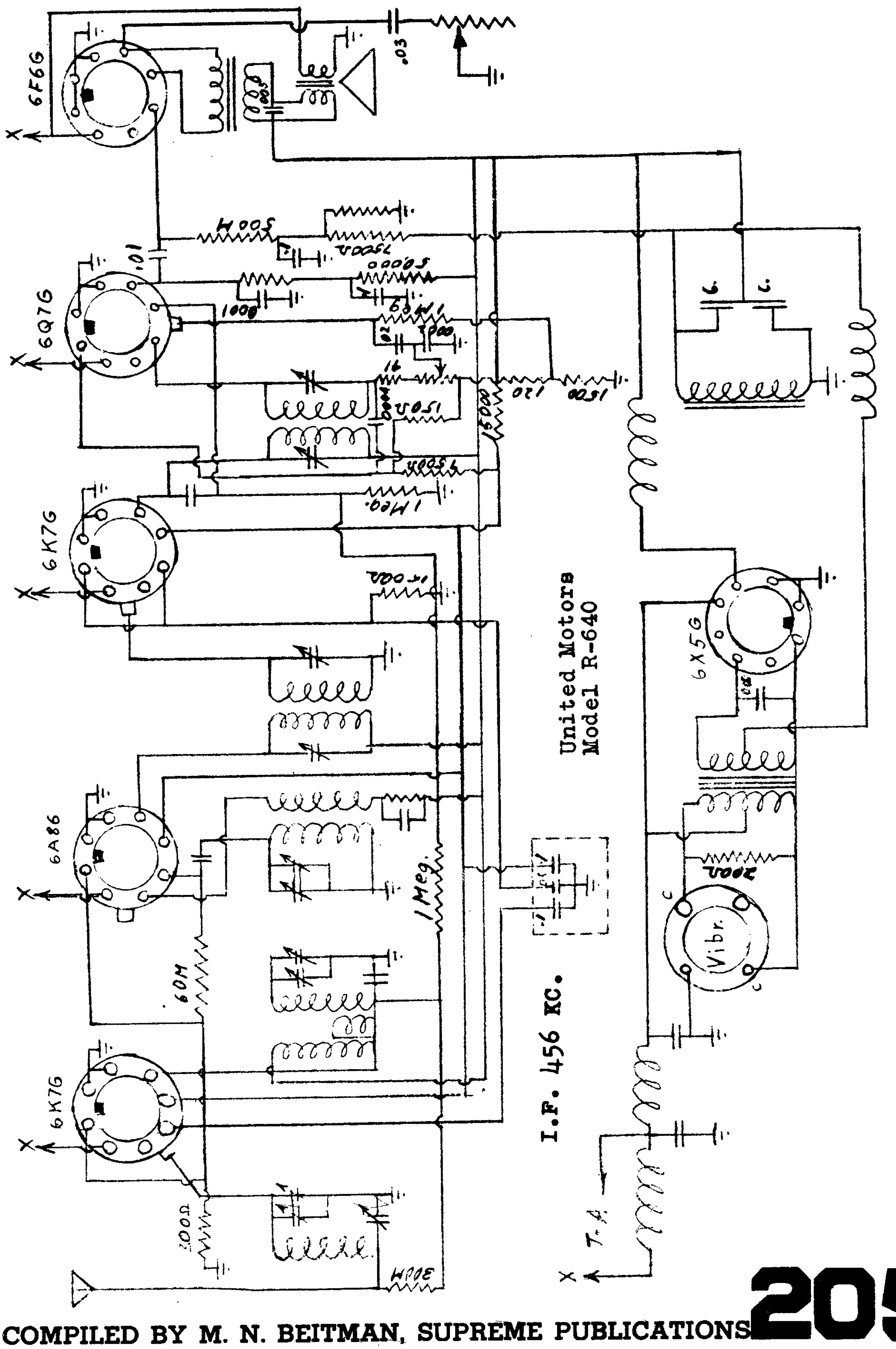
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

Transformer Corp. of America
Model 480

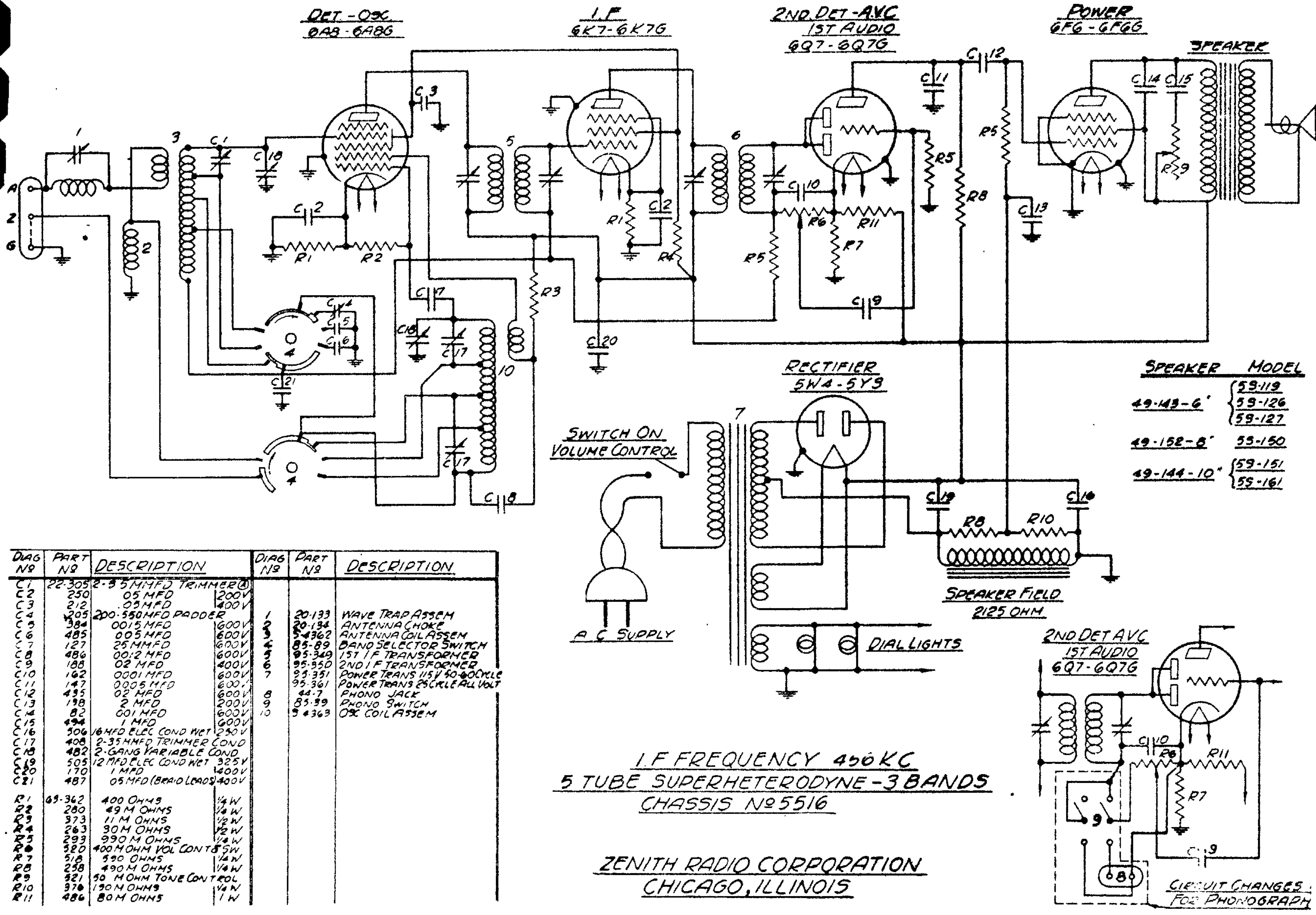




United American Boscn Corp.
Models: 60, 60D, 60E, 61



United Motors
Model R-640



SPEAKER	MODEL
49-143-6"	5S-119 5S-126 5S-127
49-152-8"	5S-150
49-144-10"	5S-151 5S-161

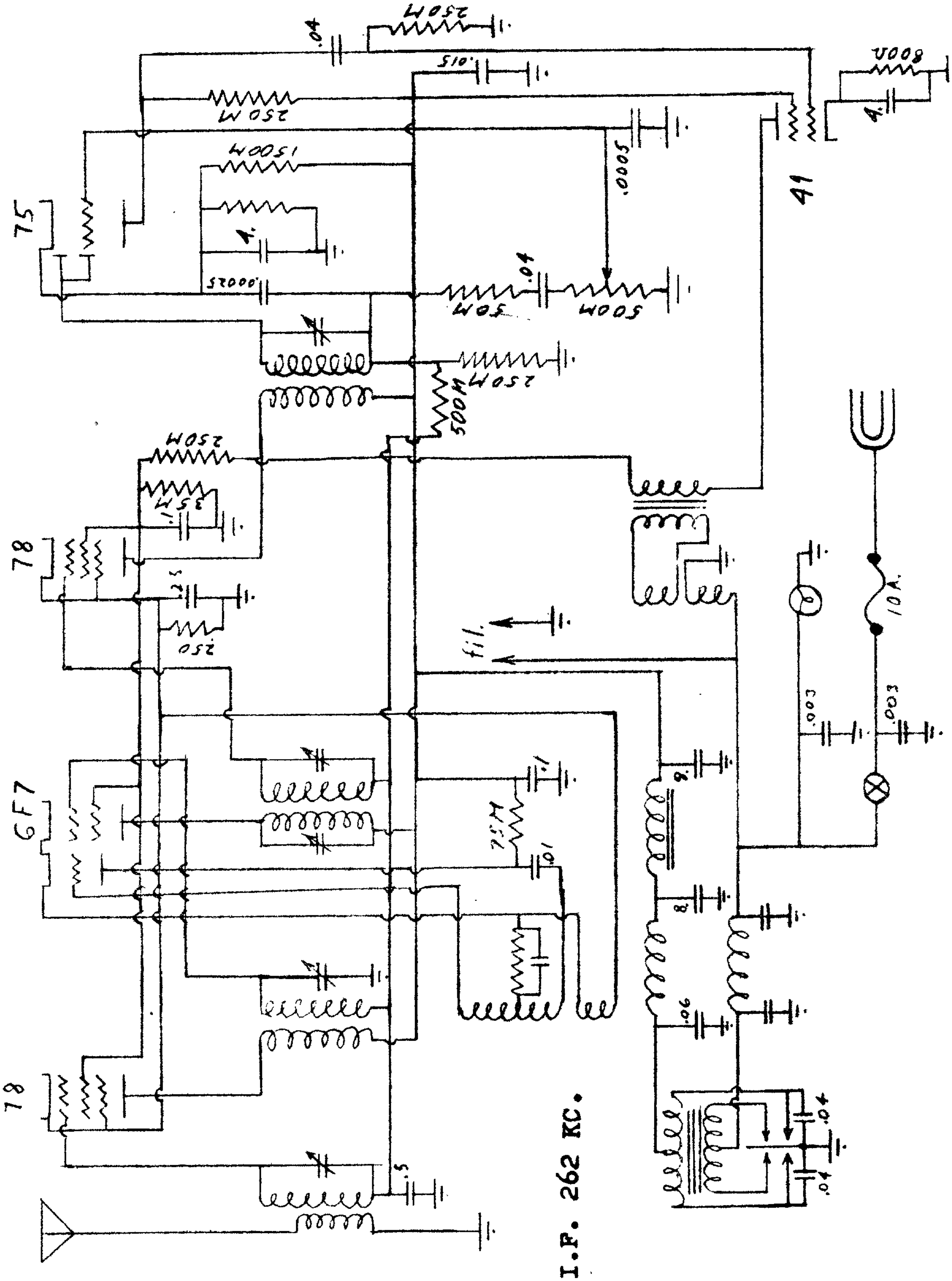
DIAG No	PART No	DESCRIPTION		DIAG No	PART No	DESCRIPTION
C1	22-305	2-35 MMFD TRIMMER Ⓐ				
C2	250	05 MFD	200V			
C3	212	.05 MFD	400V			
C4	205	200-550 MFD PADDER		1	20-133	WAVE TRAP ASSEM
C5	384	0015 MFD	600V	2	20-134	ANTENNA CHOKE
C6	485	005 MFD	600V	3	5-4362	ANTENNA COIL ASSEM
C7	127	25 MMFD	600V	4	85-89	BAND SELECTOR SWITCH
C8	486	0012 MFD	600V	5	95-349	1ST I F TRANSFORMER
C9	188	02 MFD	400V	6	95-350	2ND I F TRANSFORMER
C10	162	0001 MFD	600V	7	95-351	POWER TRANS 115V 50-60 CYCLE
C11	147	0005 MFD	600V		95-361	POWER TRANS 25 CYCLE ALL VOLT
C12	435	02 MFD	600V	8	44-7	PHONO JACK
C13	198	2 MFD	200V	9	85-39	PHONO SWITCH
C14	82	001 MFD	600V	10	5-4363	OSC COIL ASSEM
C15	494	1 MFD	600V			
C16	506	16 MFD ELEC COND WET	250V			
C17	408	2-35 MMFD TRIMMER COND				
C18	482	2-GANG VARIABLE COND				
C19	505	12 MFD ELEC COND WET	325V			
C20	170	1 MFD	400V			
C21	487	05 MFD (BRAID LEADS)	400V			
R1	63-362	400 OHMS	1/4 W			
R2	280	49 M OHMS	1/4 W			
R3	373	11 M OHMS	1/2 W			
R4	263	30 M OHMS	1/2 W			
R5	293	990 M OHMS	1/4 W			
R6	520	400 M OHM VOL CONT & SW				
R7	518	590 OHMS	1/4 W			
R8	258	490 M OHMS	1/4 W			
R9	521	50 M OHM TONE CONTROL				
R10	370	190 M OHMS	1/4 W			
R11	486	80 M OHMS	1 W			

I.F FREQUENCY 456 KC
5 TUBE SUPERHETERODYNE - 3 BANDS
CHASSIS No 5516

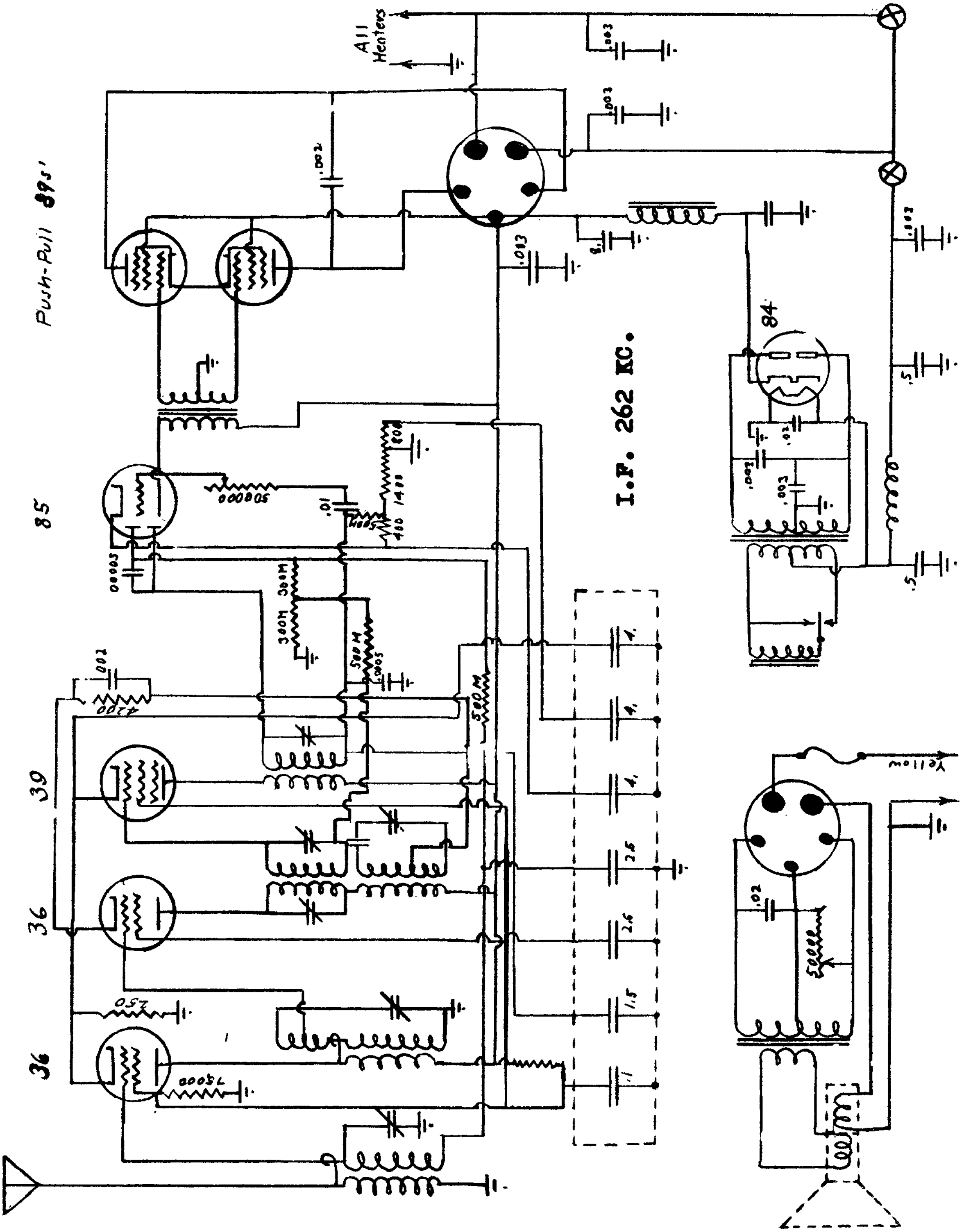
ZENITH RADIO CORPORATION
CHICAGO, ILLINOIS

Models 5-S-119, 5-S-126, 5-S-127, 5-S-150, 5-S-151, 5-S-161. (Chassis No. 5516)

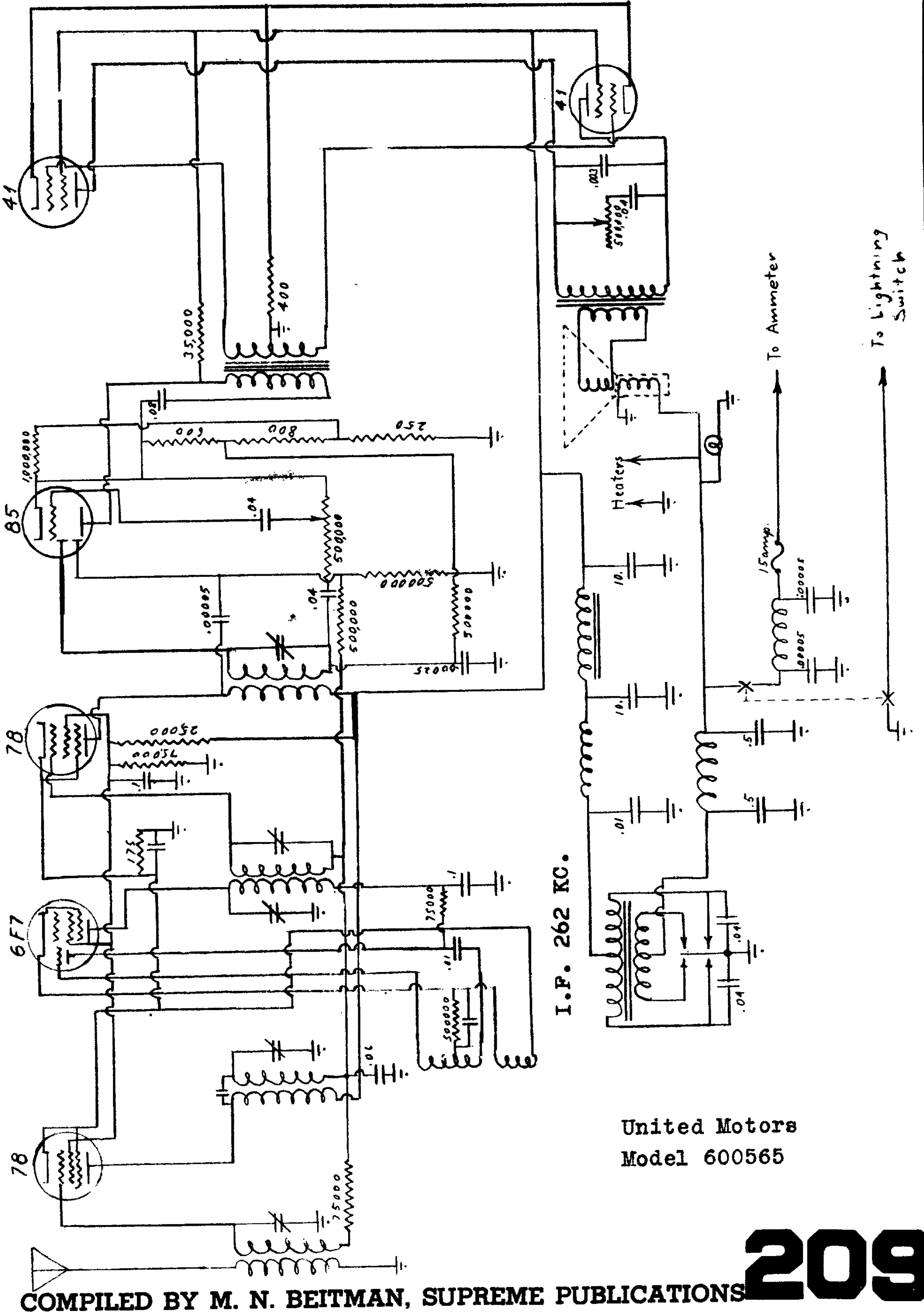
United Motors Service Model 4037



United Motors Model 364441



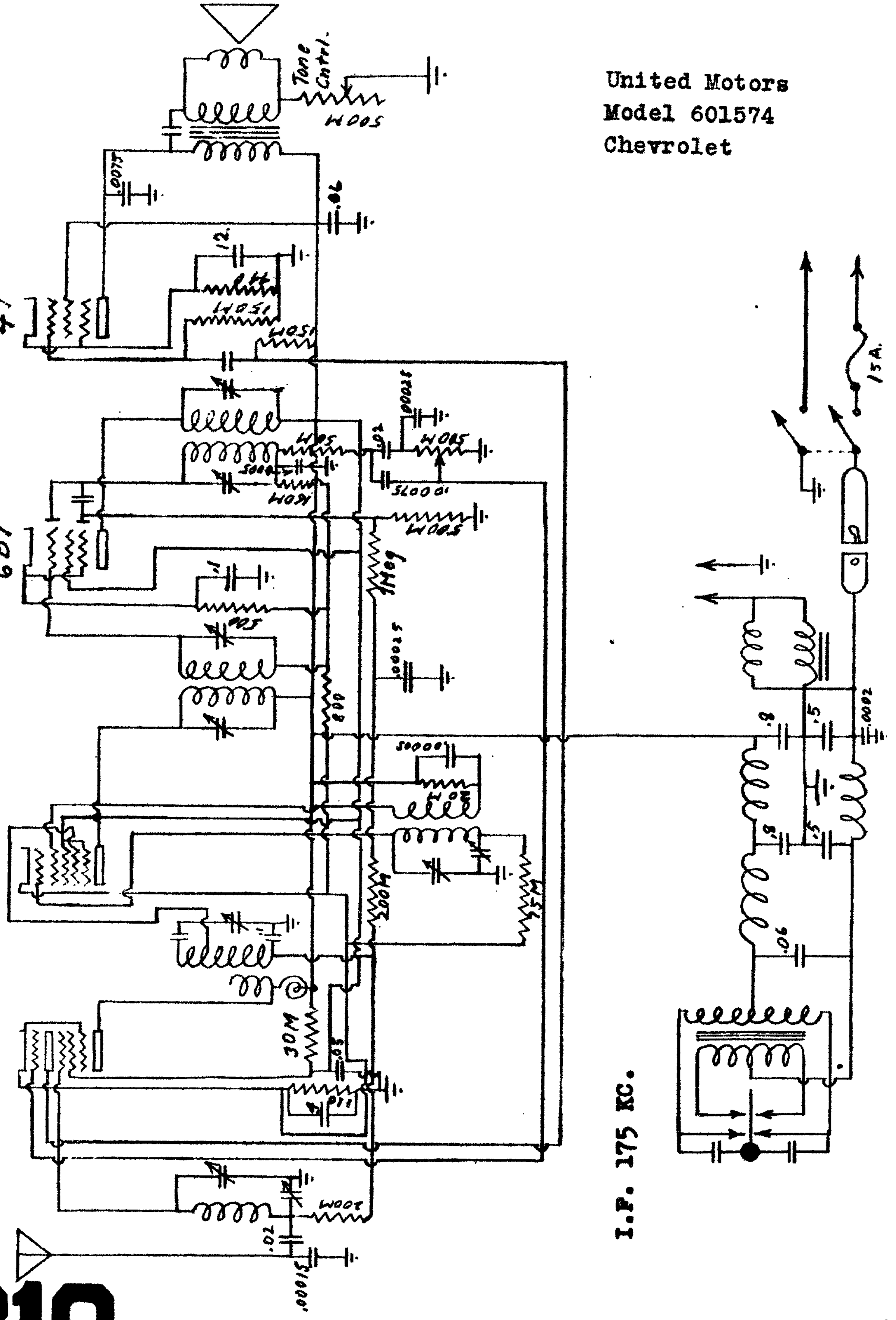
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS



United Motors
Model 600565

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

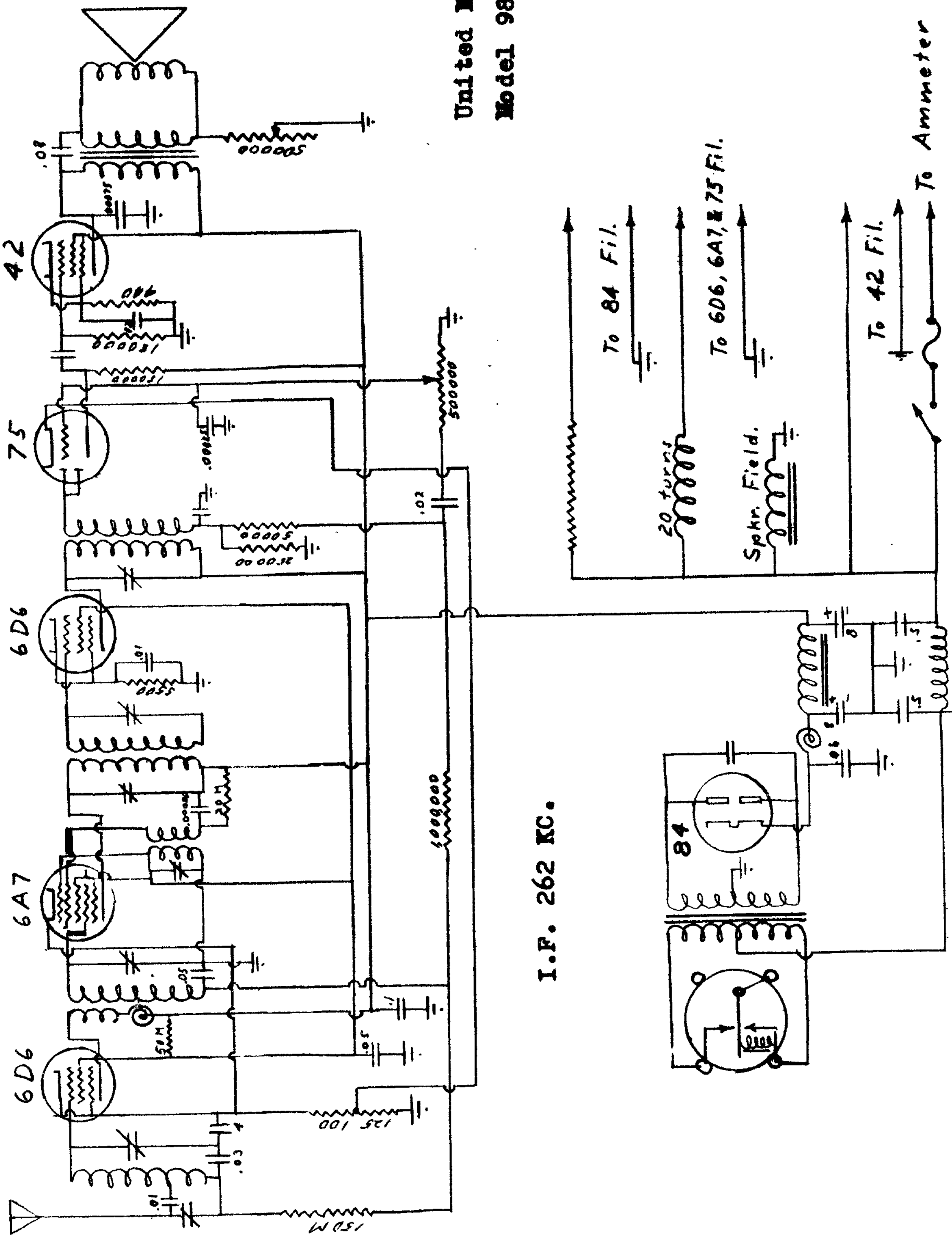
United Motors
Model 601574
Chevrolet



I.F. 175 KC.

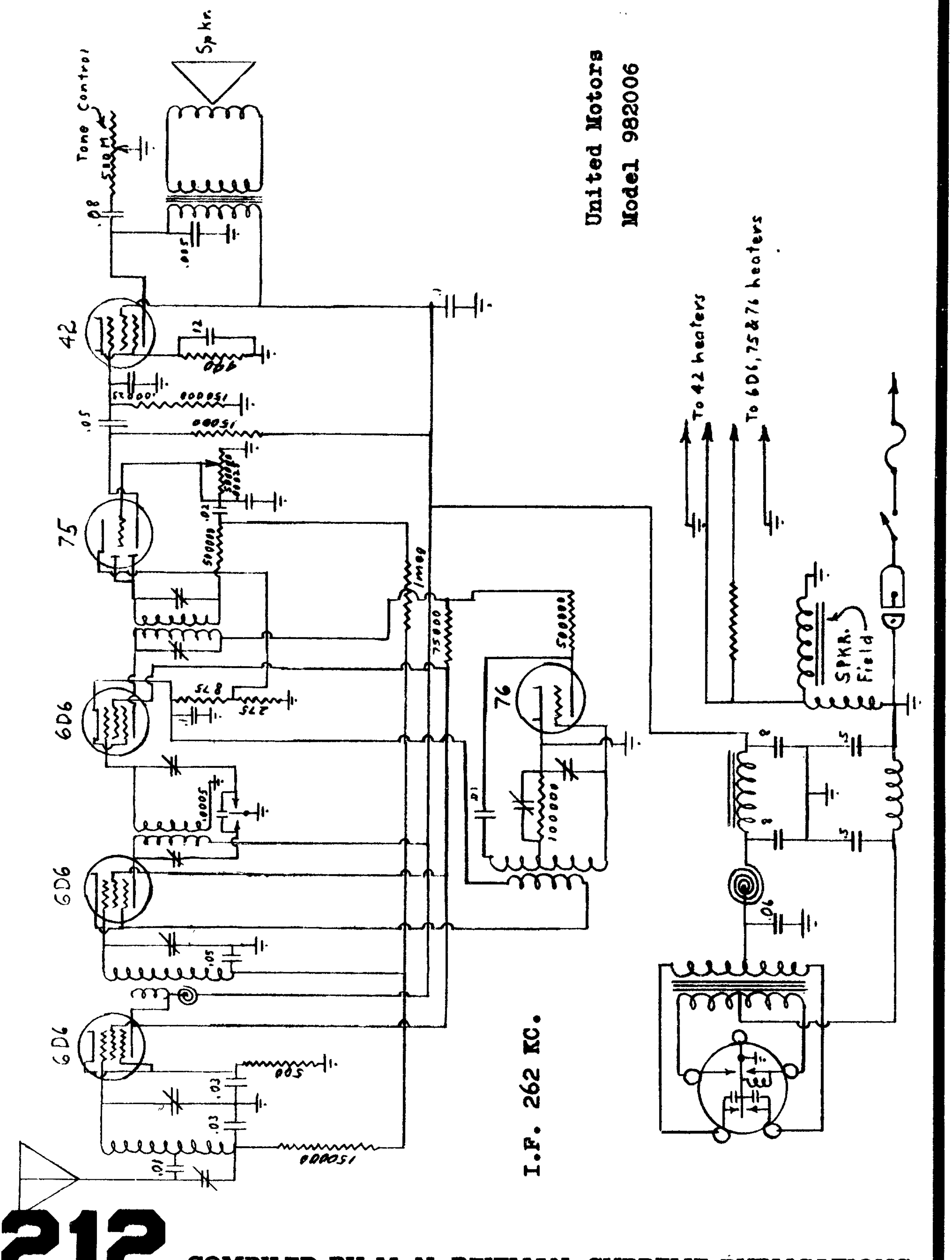
MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

United Motors
Model 985100



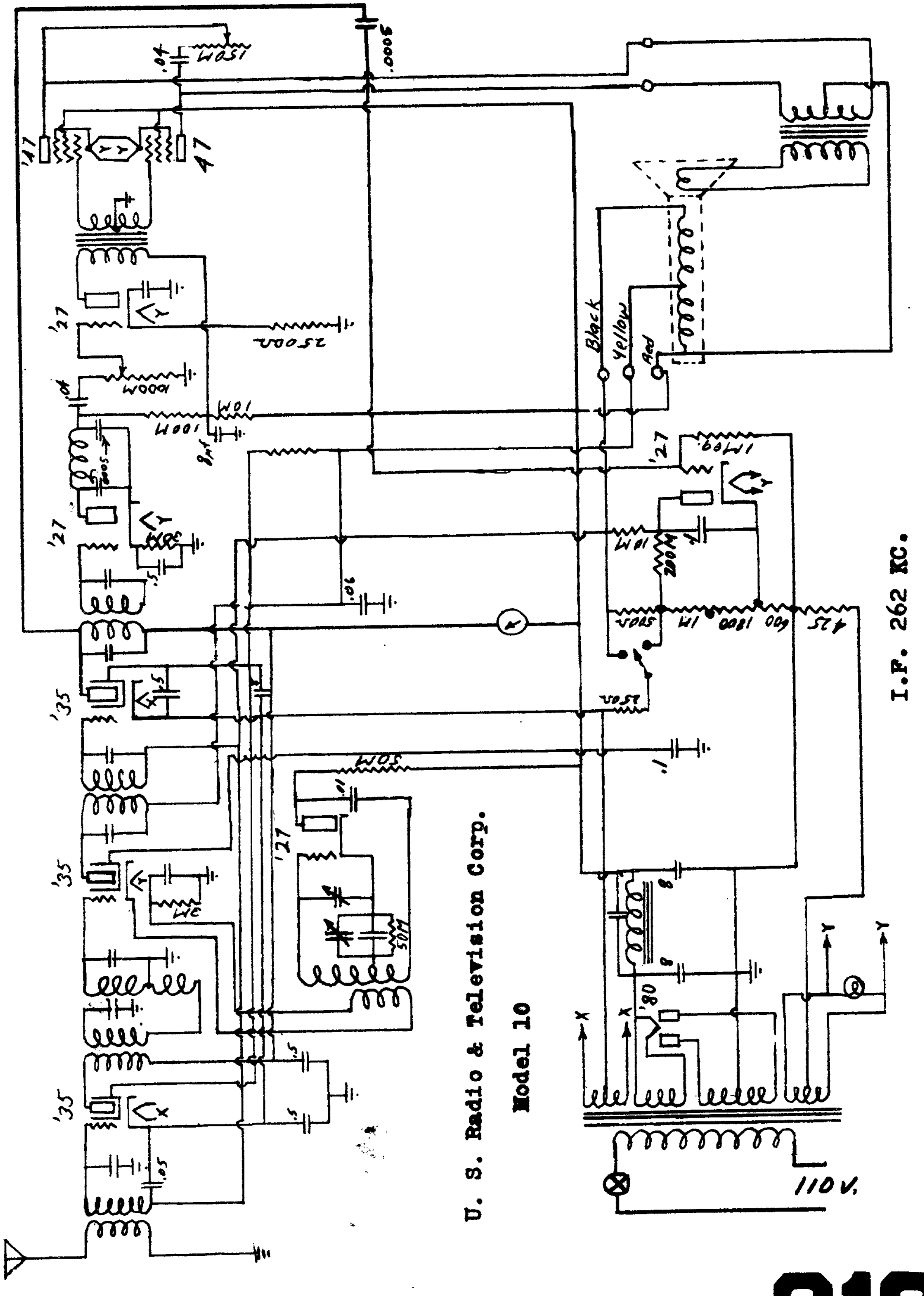
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

United Motors Model 982006



I.F. 262 KC.

MANUAL OF MOST-OFTEN-NEEDED RADIO DIAGRAMS

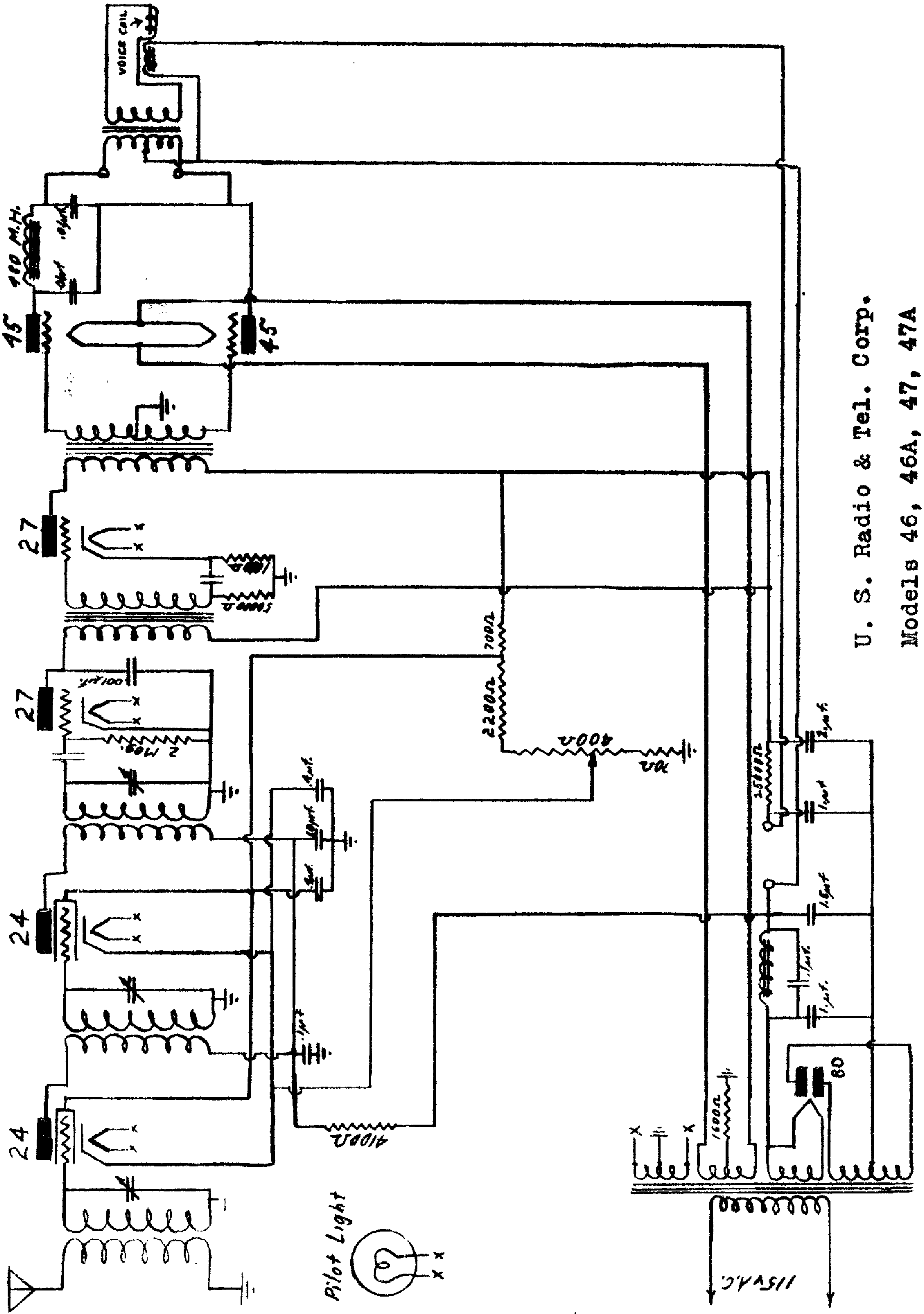


U. S. Radio & Television Corp.

Model 10

I.F. 262 KC.

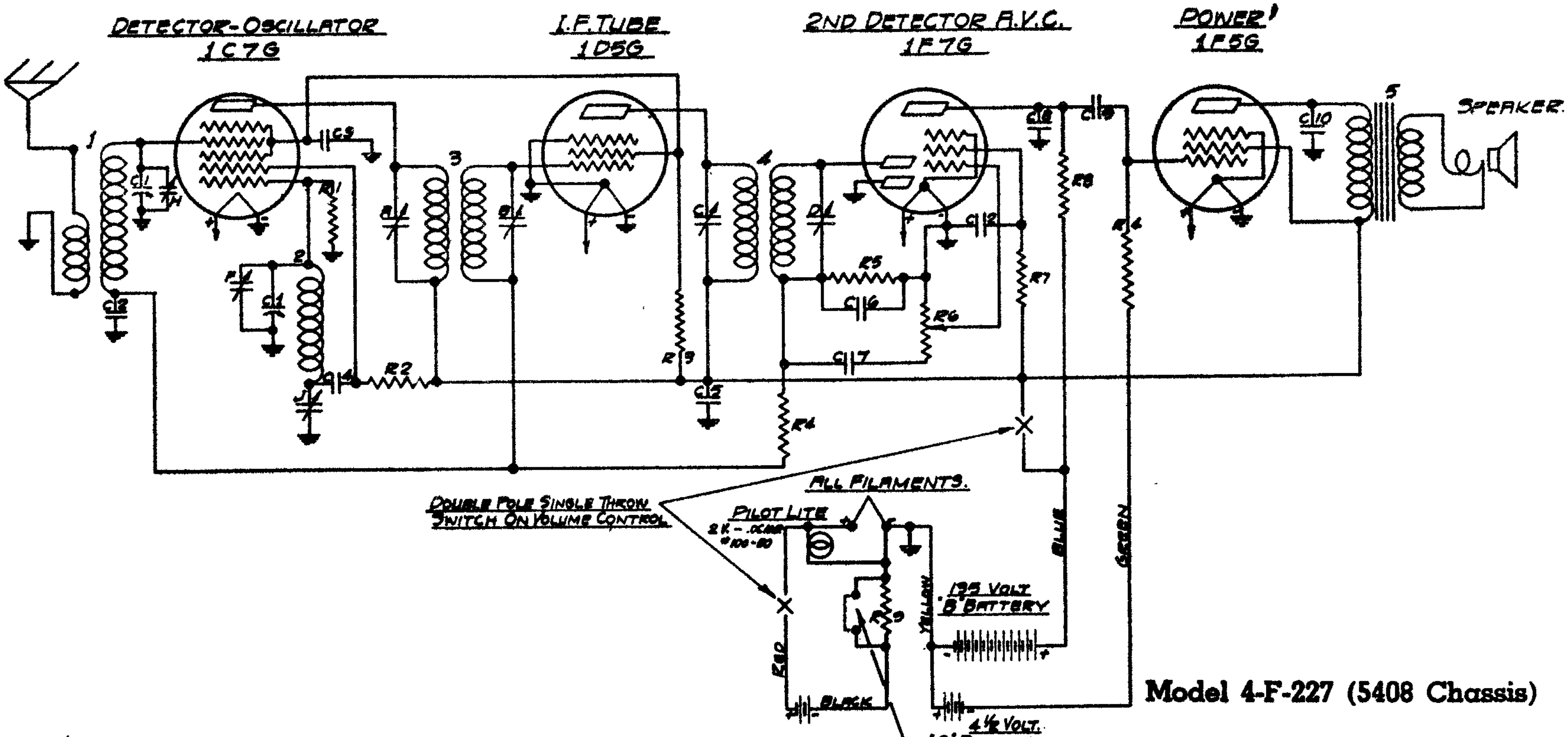
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS



U. S. Radio & Tel. Corp.

Models 46, 46A, 47, 47A
Apex

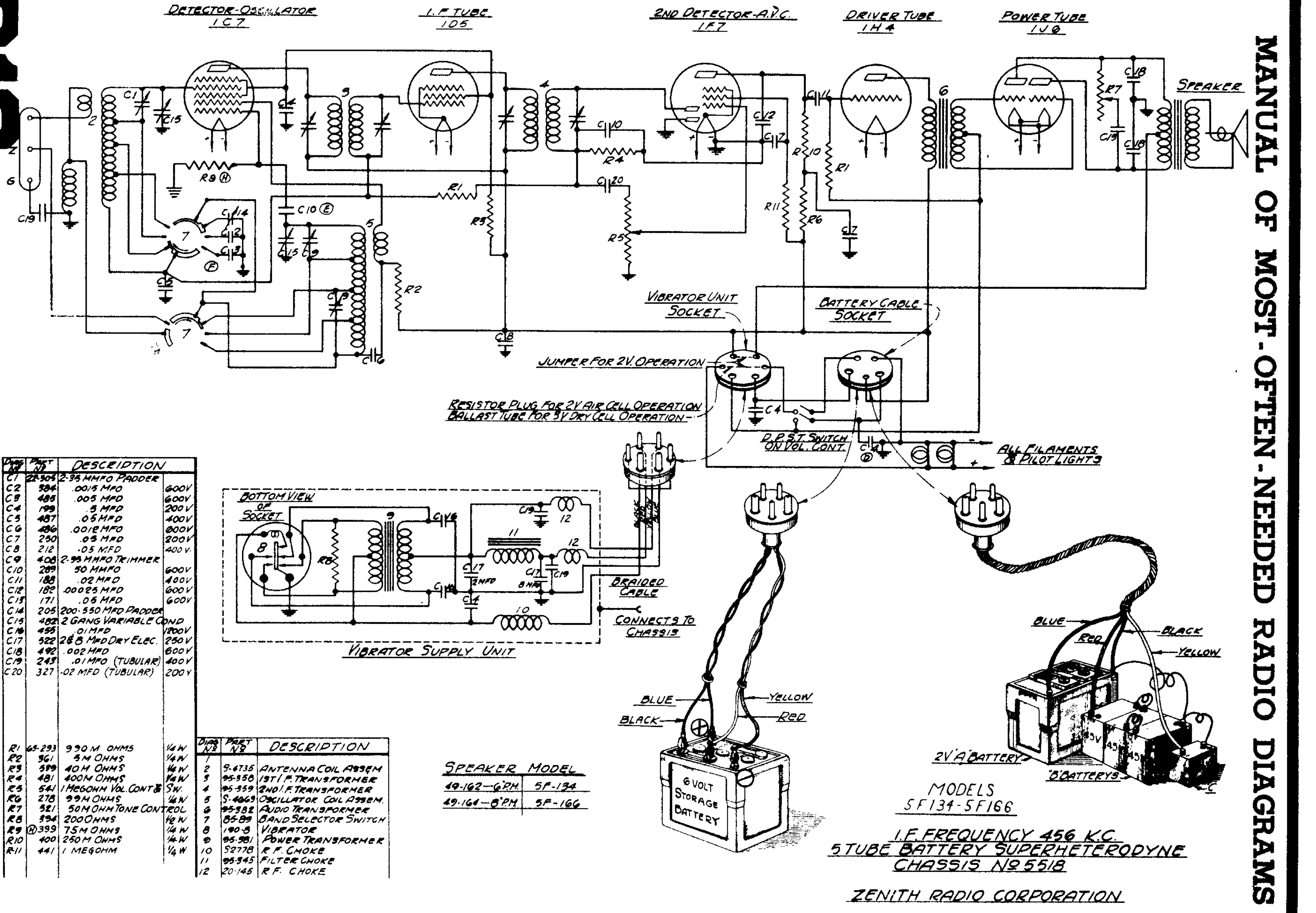
Model 4-F-227 (5408 Chassis)



I.F. FREQUENCY 456 K.C.
4 TUBE BATTERY SUPERHETERODYNE
CHASSIS No 5408

ZENITH RADIO CORPORATION

DIAG No	PART No	DESCRIPTION~		DIAG No	PART No	DESCRIPTION~
C1	22-406	TWO GANG VARIABLE		1	S 5100	ANT. COIL & SHIELD ASSEMBLY
C2	260	.05 MFD	200V			
C3	199	.5 MFD	200V	2	S 4662	OSCILLATOR COIL ASSEMBLY
C4	958	.002 MFD	600V	3	95-419	1ST. I.F. TRANSFORMER
C5	212	.05 MFD	400V	4	95-420	2ND. I.F. TRANSFORMER
C6	162	.0001 MFD	000V	5	——	SPEAKER TRANS. (ON SPEAKER)
C7	327	.02 MFD	200V			
C8	147	.0005 MFD	600V			VARIABLE TRIMMERS.—
C9	188	.02 MFD	400V	A		1ST. I.F. TRANSFORMER PRIMARY
C10	492	.002 MFD	000V	B		1ST. I.F. TRANSFORMER SECONDARY
				C		2ND. I.F. TRANSFORMER PRIMARY
				D		2ND. I.F. TRANSFORMER SECONDARY
				F		BROADCAST OSCILLATOR (ON GANG)
R1	63-593	47 M OHM	¼W ± 20	H		ANTENNA BROADCAST (ON GANG)
R2	638	5600 OHM	¼W ± 10	J	#22-619	OSCILLATOR PADDER.
R3	647	39 M OHM	¼W ± 10			
R4	271	1 MEGOHM	¼W ± 20			
R5	658	390 M OHM	¼W ± 10			
R6	548	1 MEGOHM VOLUME CONTROL			MODEL	SPEAKER
R7	441	1 MEGOHM	¼W ± 10		4F227	49-209—6"
R8	657	330 M OHM	¼W ± 10			
R9	684	.04 OHM (NICHROME)	¼W ± 10			



Diag Nº	Part Nº	DESCRIPTION	
C1	22-305	2-35 MMFD PADDER	
C2	384	.0015 MFD	600V
C3	485	.005 MFD	600V
C4	199	.5 MFD	200V
C5	487	.05 MFD	400V
C6	486	.0012 MFD	600V
C7	250	.05 MFD	200V
C8	212	.05 MFD	400V.
C9	406	2-35 MMFD TRIMMER	
C10	289	50 MMFD	600V
C11	188	.02 MFD	400V
C12	182	.00025 MFD	600V
C13	171	.05 MFD	600V
C14	205	200-550 MFD PADDER	
C15	482	2 GANG VARIABLE COND	
C16	455	.01 MFD	1200V
C17	522	2 & 8 MFD DRY ELEC.	250V
C18	492	.002 MFD	600V
C19	243	.01 MFD (TUBULAR)	400V
C20	327	.02 MFD (TUBULAR)	200V
R1	63-293	990 M OHMS	1/4 W
R2	361	5 M OHMS	1/4 W
R3	399	40 M OHMS	1/4 W
R4	481	400 M OHMS	1/4 W
R5	541	1 MEGOHM VOL. CONT &	SW.
R6	278	99 M OHMS	1/4 W
R7	521	50 M OHM TONE CONTROL	
R8	394	2000 OHMS	1/2 W
R9	Ⓗ 399	75 M OHMS	1/4 W
R10	400	250 M OHMS	1/4 W
R11	441	1 MEGOHM	1/4 W

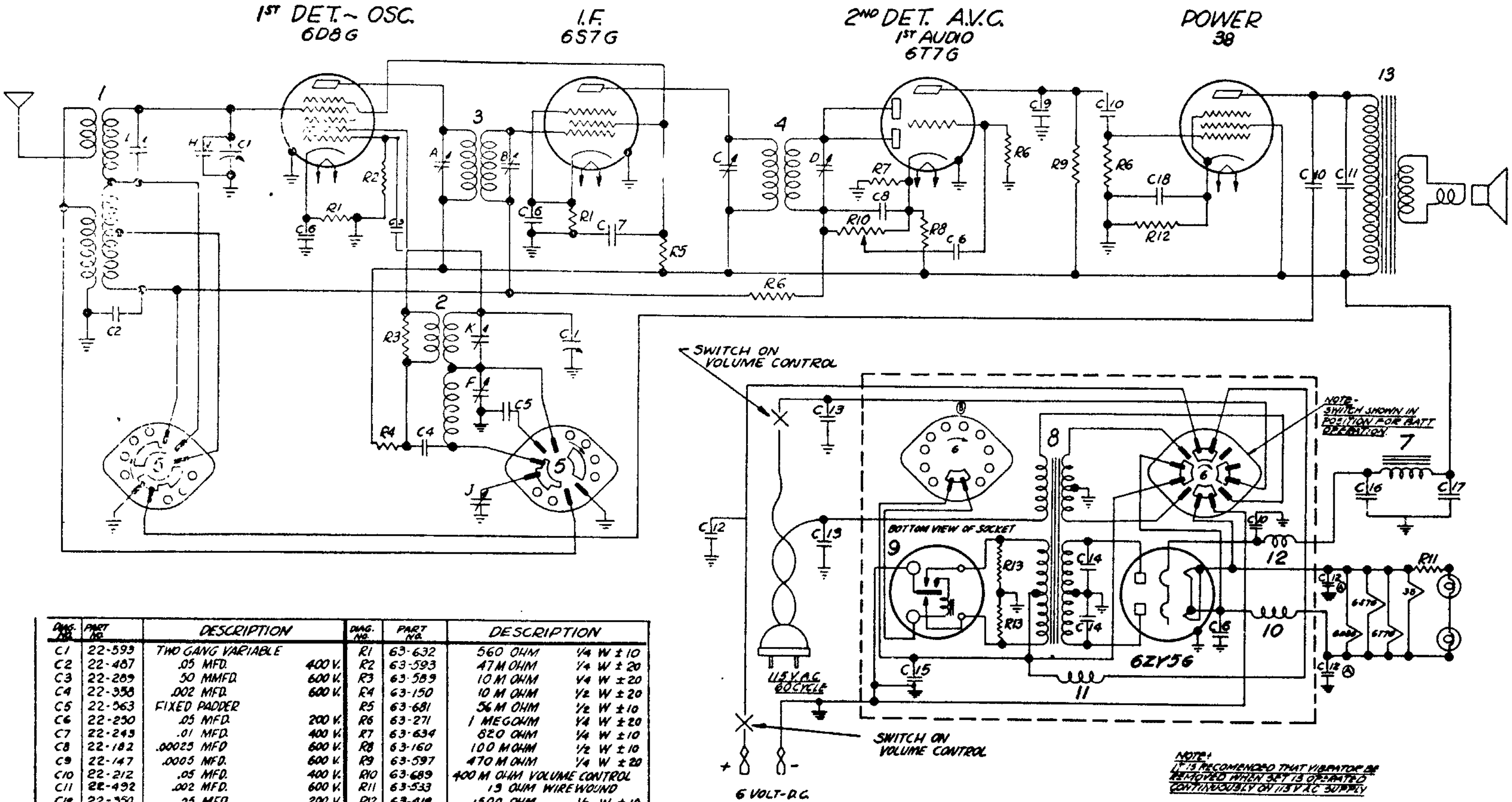
DIAG Nº	PART Nº	DESCRIPTION
1		
2	9-4735	ANTENNA COIL ASSEM
3	95-358	1ST I.F. TRANSFORMER
4	95-359	2ND I.F. TRANSFORMER
5	S-4069	OSCILLATOR COIL ASSEM.
6	95-382	AUDIO TRANSFORMER
7	85-89	BAND SELECTOR SWITCH
8	190-8	VIBRATOR
9	95-381	POWER TRANSFORMER
10	S2778	R.F. CHOKE
11	95-345	FILTER CHOKE
12	20-145	R.F. CHOKE

SPEAKER	MODEL
49-162—6"PM	5F-134
49-164—8"PM	5F-166

MODELS
5F134-5F166

I.F. FREQUENCY 456 K.C.
5 TUBE BATTERY SUPERHETERODYNE
CHASSIS Nº 5518

ZENITH RADIO CORPORATION



DIAG. NO.	PART NO.	DESCRIPTION	
C1	22-593	TWO GANG VARIABLE	
C2	22-487	.05 MFD.	400 V.
C3	22-289	50 MMFD.	600 V.
C4	22-358	.002 MFD.	600 V.
C5	22-563	FIXED PADDER	
C6	22-250	.05 MFD.	200 V.
C7	22-243	.01 MFD.	400 V.
C8	22-182	.00025 MFD	600 V.
C9	22-147	.0005 MFD.	600 V.
C10	22-212	.05 MFD.	400 V.
C11	22-492	.002 MFD.	600 V.
C12	22-350	.25 MFD.	200 V.
C13	22-435	.02 MFD.	600 V.
C14	22-574	.02 MFD.	600 V.
C15	22-199	.5 MFD.	200 V.
C16	22-577	8 MFD. ELECTROLYTIC	250 V.
C17		8 MFD. "	250 V.
C18		10 MFD. "	25 V.

VARIABLE TRIMMERS

A	1ST I.F. TRANSFORMER PRIMARY
B	1ST I.F. TRANSFORMER SECONDARY
C	2ND I.F. TRANSFORMER PRIMARY
D	2ND I.F. TRANSFORMER SECONDARY
F	BROADCAST OSCILLATOR (SEE NOTE)
H	ANTENNA BROADCAST (ON GANG)
J	#22-519 BROADCAST PADDER
K	SHORT WAVE OSCILLATOR (SEE NOTE)
L	SHORT WAVE DETECTOR (SEE NOTE)

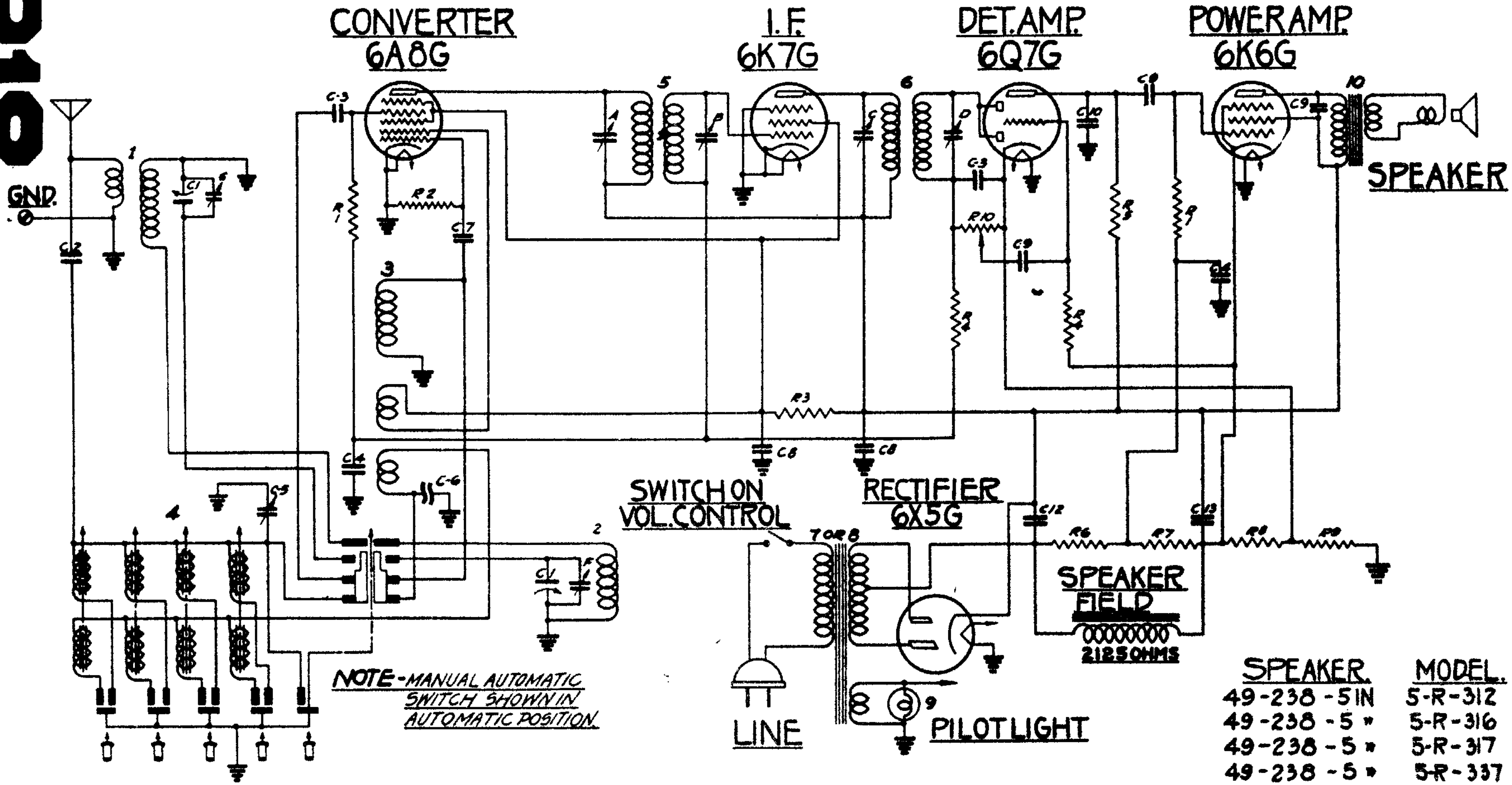
NOTE — TRIMMERS F, K, & L MOUNTED ON BAKELITE STRIP #ER-324

DIAG. NO.	PART NO.	DESCRIPTION	
R1	63-632	560 OHM	1/4 W ±10
R2	63-593	47 M OHM	1/4 W ±20
R3	63-589	10 M OHM	1/4 W ±20
R4	63-150	10 M OHM	1/2 W ±20
R5	63-681	56 M OHM	1/2 W ±10
R6	63-271	1 MEGOHM	1/4 W ±20
R7	63-634	820 OHM	1/4 W ±10
R8	63-160	100 M OHM	1/2 W ±10
R9	63-597	470 M OHM	1/4 W ±20
R10	63-689	400 M OHM VOLUME CONTROL	
R11	63-533	13 OHM WIREWOUND	
R12	63-418	1500 OHM	1/2 W ±10
R13	63-577	100 OHM	1/4 W ±20
1	5-5303	ANT. COIL & SHIELD ASSEMBLY	
2	5-4909	OSCILLATOR COIL ASSEMBLY	
3	95-443	1ST I.F. TRANSFORMER	
4	95-444	2ND I.F. TRANSFORMER	
5	85-104	BAND SELECTOR SWITCH	
6	85-425	POWER SUPPLY SWITCH	
7	95-298	POWER CHOKE	
8	95-425	POWER TRANSFORMER	
9	190-11	VIBRATOR	
10	5-2778	R.F. CHOKE ASSEMBLY	
11	5-5048	R.F. CHOKE ASSEMBLY	
12	20-82	R.F. CHOKE	
13		SPEAKER TRANSFORMER	

I.F. FREQUENCY 456 K.C.
5 TUBE BATTERY SUPERHETERODYNE
6 VOLT D.C. # 115 VOLT A.C.
CHASSIS Nº 5524

ZENITH RADIO CORP.

Models 5-J-217, 5-J-247, 5-J-255 (5524 Chassis)

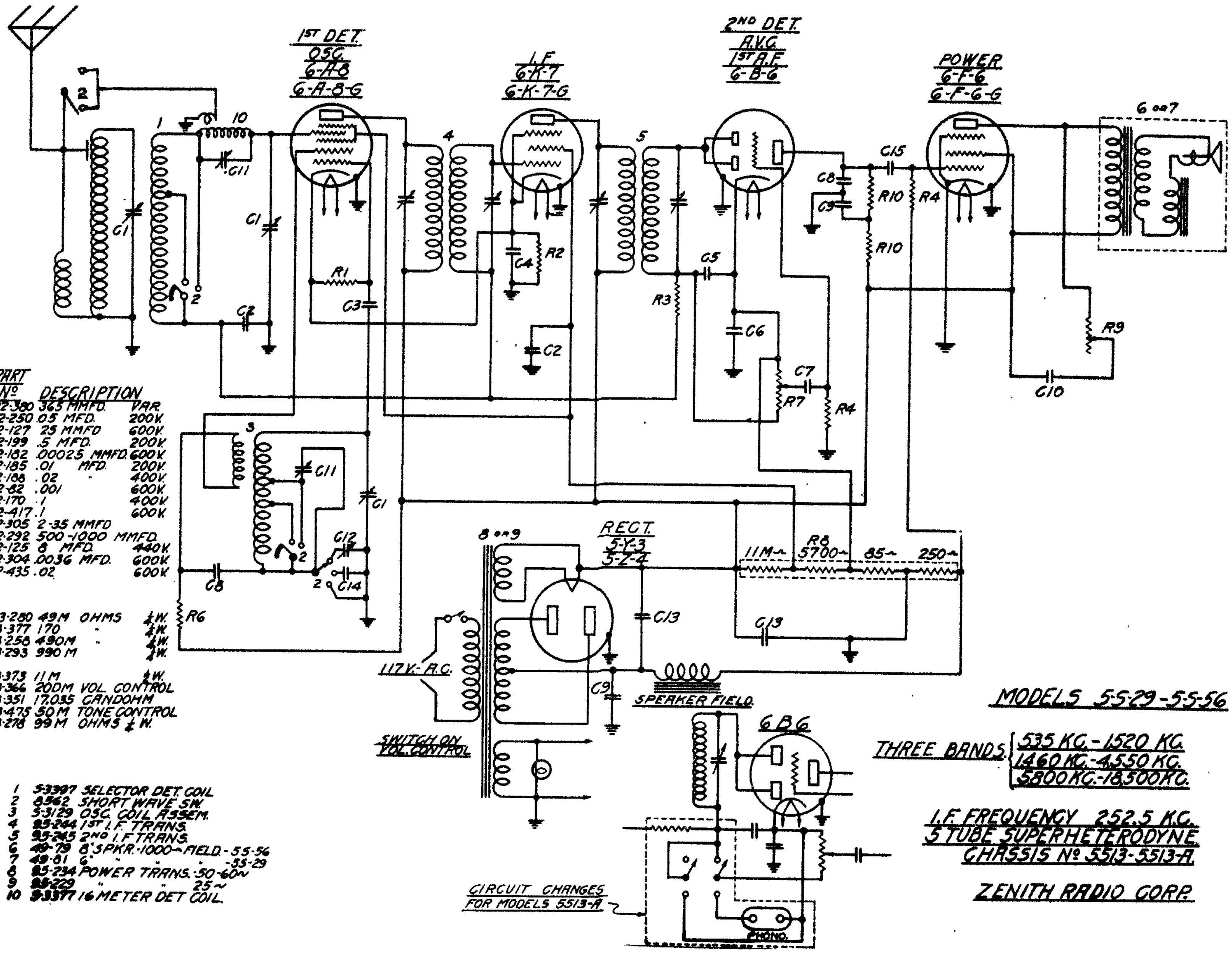


NOTE-MANUAL AUTOMATIC SWITCH SHOWN IN AUTOMATIC POSITION.

SPEAKER.	MODEL.
49-238-5IN	5-R-312
49-238-5 "	5-R-316
49-238-5 "	5-R-317
49-238-5 "	5-R-337
49-238-5 "	5-R-303

DIAG Nº	PART Nº	DESCRIPTION		DIAG Nº	PART Nº	DESCRIPTION		DIAG. Nº	PART Nº	DESCRIPTION
C-1	22-695	TWO GANG VAR. COND.		R-1	63-597	470 M OHM	¼ W	4		
C-2	22-289	50 MMFD.	600V	R-2	63-593	47 M OHM	¼ W	5	95-515	1ST. I.F. TRANS.
C-3	22-162	.0001 MFD.	600V	R-3	63-208	12 M OHM	1 W	6	95-520	2ND I.F. TRANS.
C-4	22-250	.05 MFD.	200V	R-4	63-271	1 MEGOHM	¼ W	7	95-521	POWER TRANS. (117V. 50-60~
C-5	22-519	TRIMMER COND.		R-5	63-296	220 M OHM	¼ W	8	95-523	POWER TRANS. 25~
C-6	22-729	COMPENSATING COND.		R-6	63-658	390 M OHM	¼ W	9	100-36	PILOT LIGHT .25A 6.3V
C-7	22-182	.00025 MFD.	600V	R-7	63-260	100 M OHM	¼ W	10		SPEAKER TRANS
C-8	22-212	.05 MFD.	400V	R-8	63-563	80 OHM WIRE WOUND	¼ W			
C-9	22-196	.01 MFD.	600V	R-9	63-686	150 OHM WIRE WOUND	½ W	A		1ST. I.F. TRANS. PRI.
C-10	22-147	.0005 MFD	600V	R-10	63-955	220 M OHM VOL. CONT.		B		1ST I.F. TRANS SEC
								C		2ND I.F. TRANS PRI
C-12	22-691	8 MFD. ELECTROLYTIC	450V	1	5-5808	ANTENNA COIL ASSEM.		D		2ND I.F. TRANS. SEC
C-13	22-692	8 MFD. ELECTROLYTIC	350V	2	5-6039	OSC. COIL ASSEM.		F		BROADCAST OSC (ON GANG)
				3	20-187	COMPENSATING COIL		G		ANTENNA · BR'D CAST (ON GANG)

I.F. FREQUENCY 455 K.C.
5 TUBE SUPERHETERODYNE
CHASSIS Nº 5528 A.C.
ZENITH RADIO CORPORATION



MODELS 5-S-29 - 5-S-56

THREE BANDS { 535 KC.-1520 KC.
1460 KC.-4550 KC.
5800 KC.-18,500 KC.

I.F. FREQUENCY 252.5 KC.
5 TUBE SUPERHETERODYNE
CHASSIS № 5513-5513-A

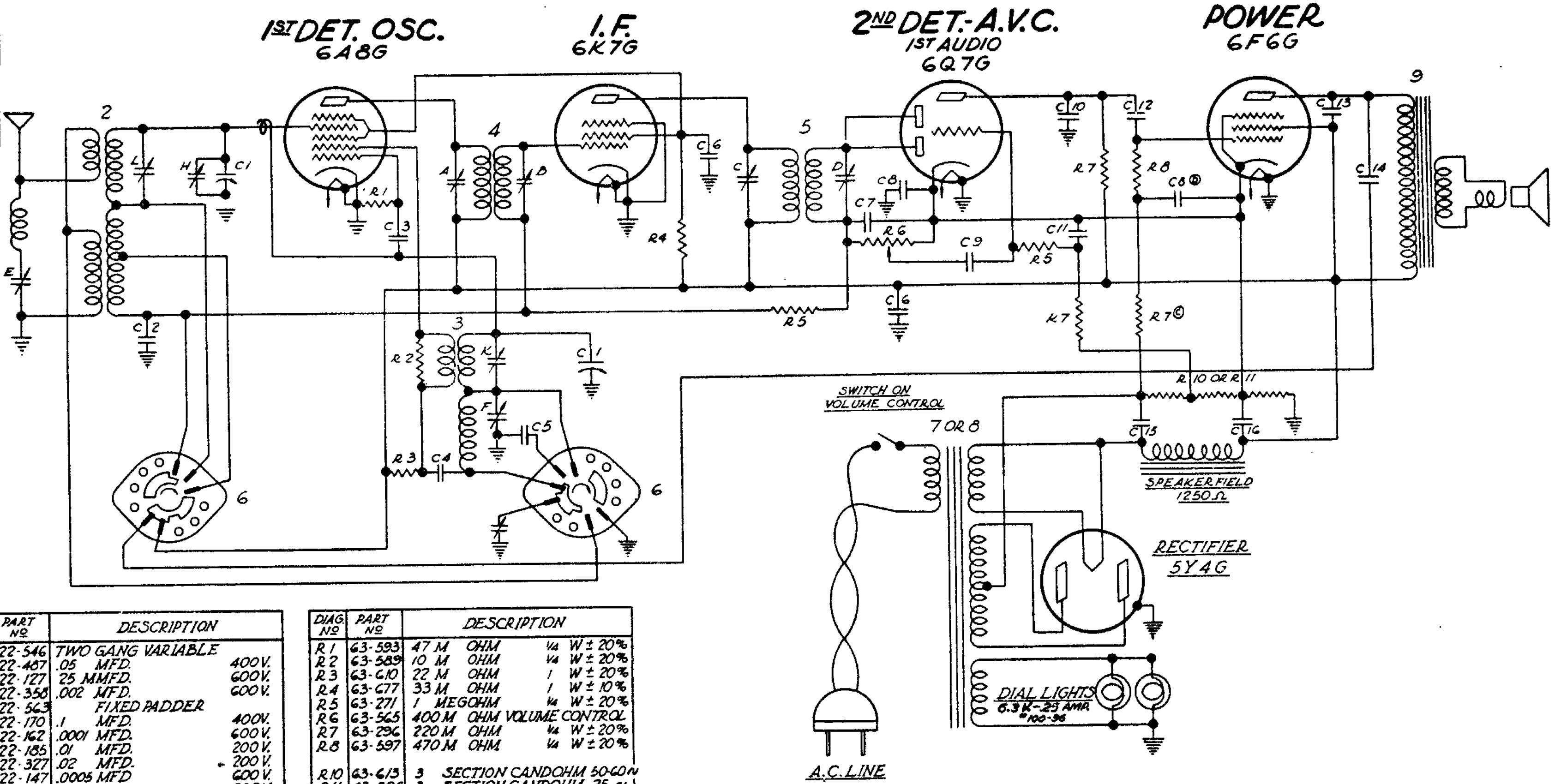
ZENITH RADIO CORP.

CIRCUIT CHANGES FOR MODELS 5513-A

[illegible] №	PART №	DESCRIPTION	
C1	22-380	365 MMFD.	VAR.
C2	22-250	.05 MFD.	200V.
C3	22-127	25 MMFD	600V.
C4	22-199	.5 MFD.	200V.
C5	22-182	.00025 MMFD.	600V.
C6	22-185	.01 MFD.	200V.
C7	22-188	.02 "	400V.
C8	22-82	.001	600V.
C9	22-170	.1	400V.
C10	22-417	.1	600V.
C11	22-305	2-35 MMFD	
C12	22-292	500-1000 MMFD.	
C13	22-125	8 MFD.	440V.
C14	22-304	.0036 MFD.	600V.
C15	22-435	.02	600V.
R1	63-280	49M OHMS	¼W.
R2	63-377	170 "	¼W.
R3	63-258	490M "	¼W.
R4	63-293	990 M	½W.
R6	63-373	11 M	¼W.
R7	63-366	200M VOL. CONTROL	
R8	63-351	17,035 CANDOHM	
R9	63-475	50M TONE CONTROL	
R10	63-278	99M OHMS ¼W.	

1	S-3397	SELECTOR DET. COIL
2	8562	SHORT WAVE SW.
3	S-3129	OSC. COIL ASSEM.
4	95-244	1ST I.F. TRANS.
5	95-245	2ND I.F. TRANS.
6	49-79	8" SPKR. 1000~ FIELD - 5S-56
7	49-81	6" " " " - 5S-29
8	95-234	POWER TRANS. 50-60~
9	95-229	" " 25~
10	S-3377	16 METER DET COIL.

Models 5-S-201, 5-S-218, 5-S-220, 5-S-228, 5-S-237, 5-S-250, 5-S-252
(5521 Chassis)



DIAG Nº	PART Nº	DESCRIPTION
C1	22-546	TWO GANG VARIABLE
C2	22-467	.05 MFD. 400 V.
C3	22-127	25 MMFD. 600 V.
C4	22-358	.002 MFD. 600 V.
C5	22-563	FIXED PADDER
C6	22-170	.1 MFD. 400 V.
C7	22-162	.0001 MFD. 600 V.
C8	22-185	.01 MFD. 200 V.
C9	22-327	.02 MFD. 200 V.
C10	22-147	.0005 MFD 600 V.
C11	22-190	.1 MFD 200 V.
C12	22-435	.02 MFD. 600 V.
C13	22-492	.002 MFD. 600 V.
C14	22-171	.05 MFD. 600 V.
C15	22-596	8 MFD DRY ELECTROLYTIC 450 V
C16		14 MFD DRY ELECTROLYTIC 450 V

	VARIABLE TRIMMERS
A	1ST I.F. TRANS. PRIMARY
B	1ST I.F. TRANS. SECONDARY
C	2ND I.F. TRANS. PRIMARY
D	2ND I.F. TRANS. SECONDARY
E	#22-570 WAVE TRAP
F	BROADCAST OSCILLATOR (SEE NOTE)
H	ANTENNA BROADCAST (ON GANG)
J	#22-519 BROADCAST PADDER
K	SHORT WAVE OSCILLATOR (SEE NOTE)
L	SHORT WAVE DETECTOR #22-305

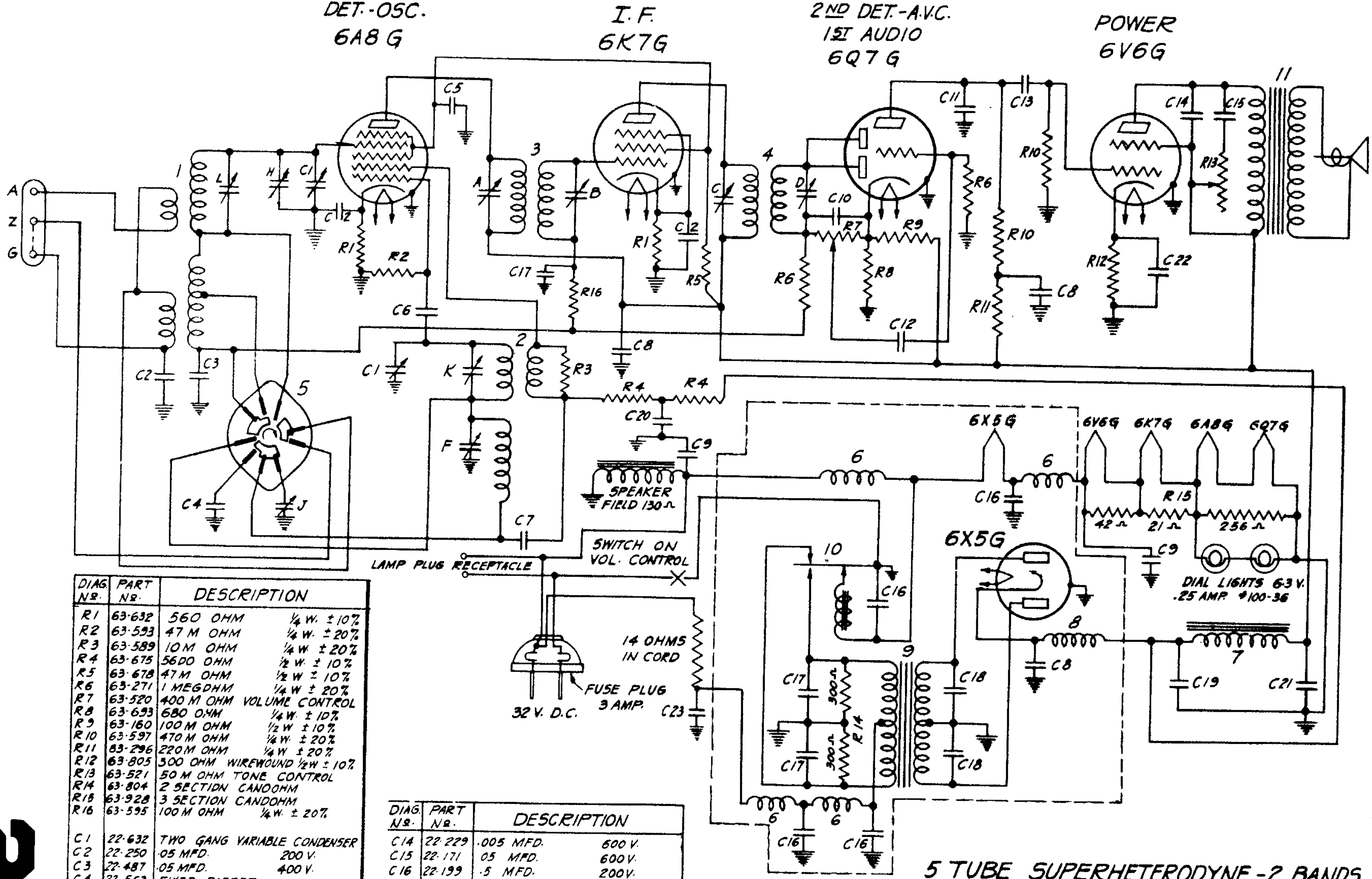
TRIMMERS F & K MOUNTED ON BAKELITE STRIP #22-408

DIAG. Nº	PART Nº	DESCRIPTION
R1	63-593	47 M OHM ¼ W ± 20%
R2	63-589	10 M OHM ¼ W ± 20%
R3	63-610	22 M OHM 1 W ± 20%
R4	63-677	33 M OHM 1 W ± 10%
R5	63-271	1 MEGOHM ¼ W ± 20%
R6	63-565	400 M OHM VOLUME CONTROL
R7	63-296	220 M OHM ¼ W ± 20%
R8	63-597	470 M OHM ¼ W ± 20%
R10	63-613	3 SECTION CANDOHM 50-60 ~
R11	63-806	3 SECTION CANDOHM 25 ~
1		WAVE TRAP COIL MOUNTED ON ANTENNA COIL ASSEMBLY
2	S-4934	ANT COIL & SHIELD ASSEMBLY
3	S-4909	OSCILLATOR COIL ASSEMBLY
4	95-407	1ST I.F. TRANSFORMER
5	95-408	2ND I.F. TRANSFORMER
6	85-104	BAND SELECTOR SWITCH
7	95-406	POWER TRANSFORMER 117 VOLT 50-60 CYCLE
8	95-452	POWER TRANSFORMER ALL VOLTAGE 25 CYCLE
9		SPEAKER TRANSFORMER

MODEL	SPEAKER
5-S-218	49-178 5"
5-S-220	49-178 5"
5-S-228	49-178 5"
5-S-237	49-180 6"
5-S-250	49-179 8"
5-S-252	49-208 10"

I.F.-FREQUENCY 456 K.C.
5 TUBE SUPERHETERODYNE
2 BAND
CHASSIS Nº 5521

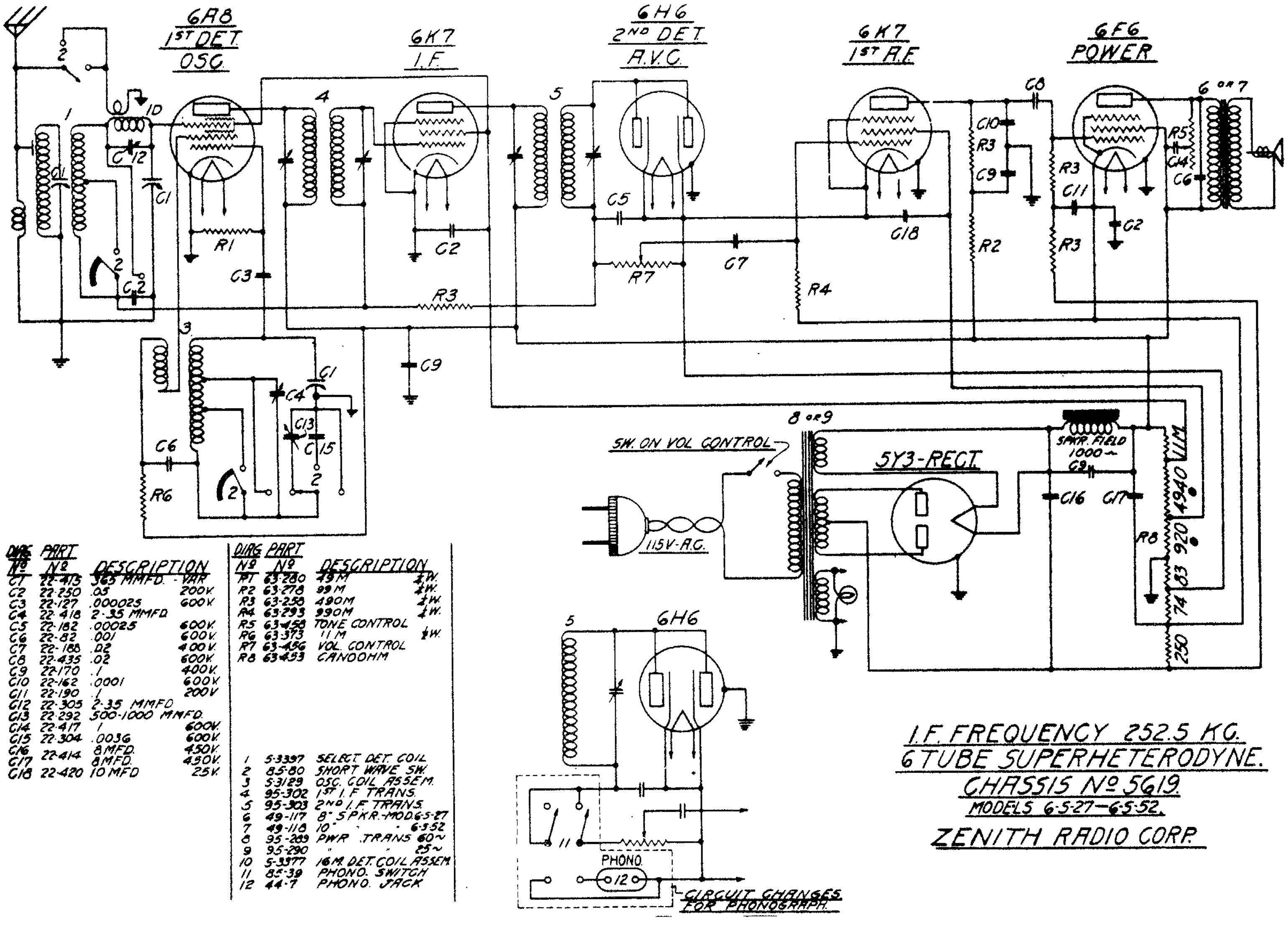
ZENITH RADIO CORP.



DIAG. Nº.	PART Nº.	DESCRIPTION
R1	63-632	560 OHM ¼ W. ± 10%
R2	63-593	47 M OHM ¼ W. ± 20%
R3	63-589	10 M OHM ¼ W. ± 20%
R4	63-675	5600 OHM ½ W. ± 10%
R5	63-678	47 M OHM ½ W ± 10%
R6	63-271	1 MEGOHM ¼ W ± 20%
R7	63-520	400 M OHM VOLUME CONTROL
R8	63-693	680 OHM ¼ W. ± 10%
R9	63-160	100 M OHM ½ W ± 10%
R10	63-597	470 M OHM ¼ W. ± 20%
R11	63-296	220 M OHM ¼ W ± 20%
R12	63-805	300 OHM WIREWOUND ½ W ± 10%
R13	63-521	50 M OHM TONE CONTROL
R14	63-804	2 SECTION CANDOHM
R15	63-928	3 SECTION CANDOHM
R16	63-595	100 M OHM ¼ W. ± 20%
C1	22-632	TWO GANG VARIABLE CONDENSER
C2	22-250	.05 MFD. 200 V.
C3	22-487	.05 MFD. 400 V.
C4	22-563	FIXED PADDER
C5	22-212	.05 MFD 400 V.
C6	22-127	25 MMFD 600 V.
C7	22-358	.002 MFD. 600 V.
C8	22-170	1 MFD. 400 V.
C9	22-350	.25 MFD 200 V.
C10	22-162	.0001 MFD. 600 V.
C11	22-147	.0005 MFD 600 V.
C12	22-327	.02 MFD 200 V.
C13	22-435	.02 MFD 600 V.

DIAG. Nº.	PART Nº.	DESCRIPTION
C14	22-229	.005 MFD. 600 V.
C15	22-171	.05 MFD. 600 V.
C16	22-199	.5 MFD. 200 V.
C17	22-185	.01 MFD. 200 V.
C18	22-646	.1 MFD. 1000 V.
C19	22-647	8 MFD. DRY ELECT. 450 V.
C20		8 MFD. DRY ELECT. 450 V.
C21	22-648	16 MFD. DRY ELECT. 450 V.
C22		10 MFD DRY ELECT. 25 V.
C23	22-243	.01 MFD. 400 V.

5 TUBE SUPERHETERODYNE - 2 BANDS
I.F. FREQUENCY - 456 K.C.
32 V. D.C. CHASSIS Nº. 5523
ZENITH RADIO CORPORATION

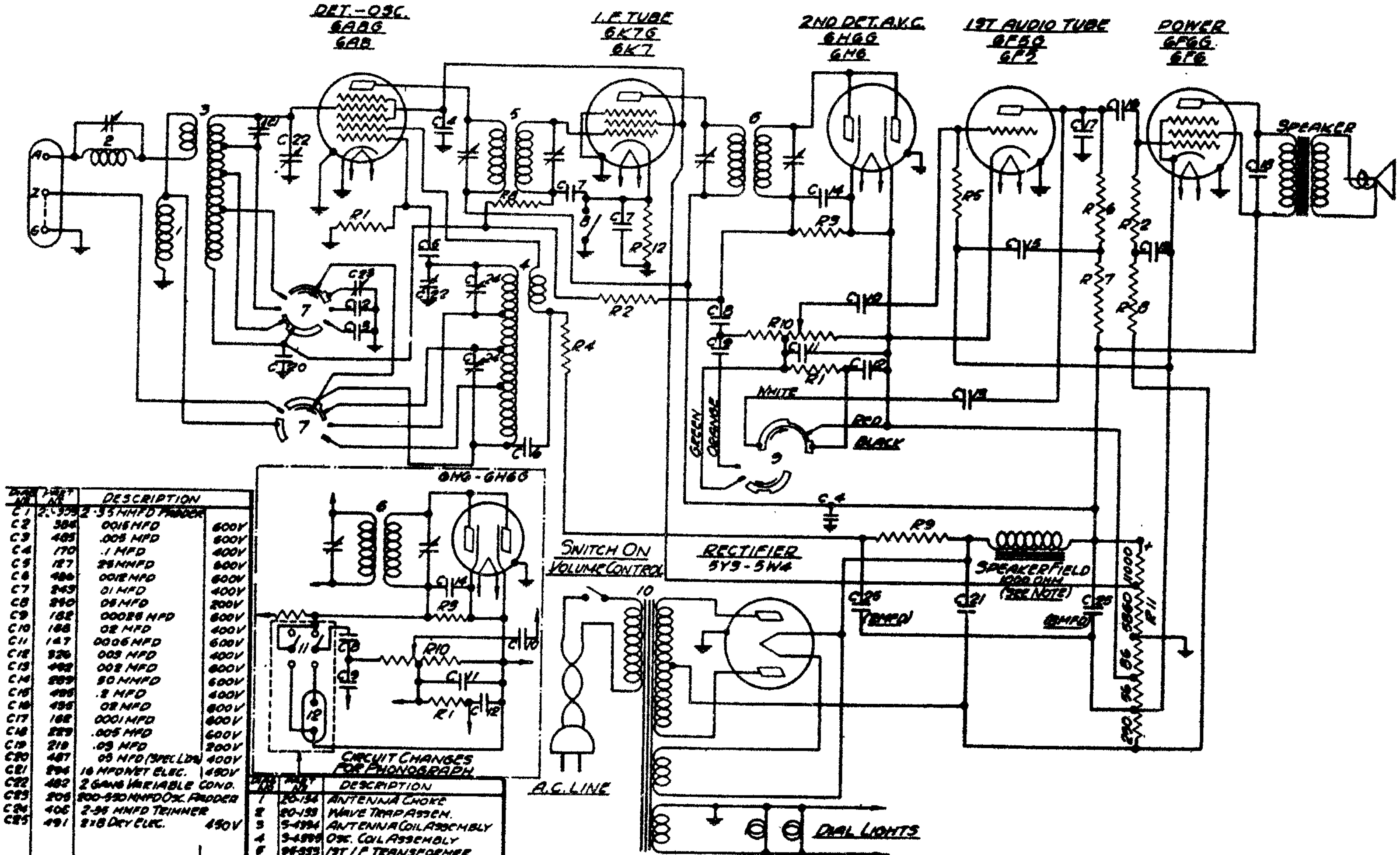


I.F. FREQUENCY 252.5 KC.
6 TUBE SUPERHETERODYNE.
CHASSIS No. 5619.
MODELS 6-5-27—6-5-52.
ZENITH RADIO CORP.

DIAG. No.	PART No.	DESCRIPTION	
C1	22-415	365 MMFD.	VAR.
C2	22-250	.05	200V.
C3	22-127	.000025	600V.
C4	22-418	2-35 MMFD.	
C5	22-182	.00025	600V.
C6	22-82	.001	600V.
C7	22-188	.02	400V.
C8	22-435	.02	600V.
C9	22-170	.1	400V.
C10	22-162	.0001	600V.
C11	22-190	.1	200V.
C12	22-305	2-35 MMFD.	
C13	22-292	500-1000 MMFD.	
C14	22-417	1	600V.
C15	22-304	.0036	600V.
C16	22-414	8 MFD.	450V.
C17		8 MFD.	450V.
C18	22-420	10 MFD.	25V.

DIAG. No.	PART No.	DESCRIPTION	
R1	63-280	49M	¼W.
R2	63-278	99M	¼W.
R3	63-258	490M	¼W.
R4	63-293	990M	¼W.
R5	63-458	TONE CONTROL	
R6	63-373	11M	¼W.
R7	63-456	VOL. CONTROL	
R8	63-453	CANOOHM	
1	5-3397	SELECT. DET. COIL	
2	85-80	SHORT WAVE SW.	
3	5-3129	OSC. COIL ASSEM.	
4	95-302	1ST I.F. TRANS.	
5	95-303	2ND I.F. TRANS.	
6	49-117	8" SPKR.-MOD. 6-5-27	
7	49-118	10" " " 6-5-52	
8	95-289	PWR. TRANS. 60~	
9	95-290	" " 25~	
10	5-3377	16M. DET. COIL ASSEM.	
11	85-39	PHONO. SWITCH	
12	44-7	PHONO. JACK	

Models 6-S-128, 6-S-137, 6-S-147, 6-S-152, 6-S-157. (Chassis No. 5634)



DIAG. NO.	PART NO.	DESCRIPTION	
C1	2-395	2-35 MMFD PADDER	
C2	386	0015 MFD	600V
C3	465	.005 MFD	600V
C4	170	.1 MFD	400V
C5	127	25 MMFD	600V
C6	486	0012 MFD	600V
C7	243	01 MFD	400V
C8	210	05 MFD	200V
C9	162	00025 MFD	600V
C10	166	02 MFD	400V
C11	147	0006 MFD	600V
C12	326	003 MFD	400V
C13	492	002 MFD	600V
C14	289	50 MMFD	600V
C15	486	.2 MFD	400V
C16	456	02 MFD	600V
C17	162	0001 MFD	600V
C18	229	.005 MFD	600V
C19	219	.05 MFD	200V
C20	487	05 MFD (SPEC. LDN)	400V
C21	294	16 MFD WET ELEC.	450V
C22	482	2 GANG VARIABLE COND.	
C23	205	200-550 MMFD OSC. PADDER	
C24	406	2-35 MMFD TRIMMER	
C25	491	8x8 DRY ELEC.	450V
R1	280	49 M OHMS	¼ W
R2	295	990 M OHMS	¼ W
R3	481	400 M OHMS	¼ W
R4	279	11 M OHMS	½ W
R5	629	2 MEGOHM	¼ W
R6	258	490 M OHMS	¼ W
R7	276	190 M OHMS	¼ W
R8	278	99 M OHMS	¼ W
R9	363	19 M OHMS	¼ W
R10	922	2 MEGOHM VOL. CONTROL & SW	
R11	919	CANDOHM RESISTOR	
R12	261	4900 OHMS	¼ W

DIAG. NO.	PART NO.	DESCRIPTION
1	20-134	ANTENNA CHOKE
2	20-133	WAVE TRAP ASSEM.
3	S-4394	ANTENNA COIL ASSEMBLY
4	S-4389	OSC. COIL ASSEMBLY
5	95-553	1ST I.F. TRANSFORMER
6	95-554	2ND I.F. TRANSFORMER
7	85-90	BAND SELECT SWITCH
8	85-91	SENSITIVITY CONTROL
9	85-92	TONE CONTROL SWITCH
10	95-289	POWER TRANS. 115V-50-60 CYCLE
	95-290	POWER TRANS. 25 CYCLE ALL VOLT
11	85-89	PHONO. SWITCH
12	44-7	PHONO. JACK

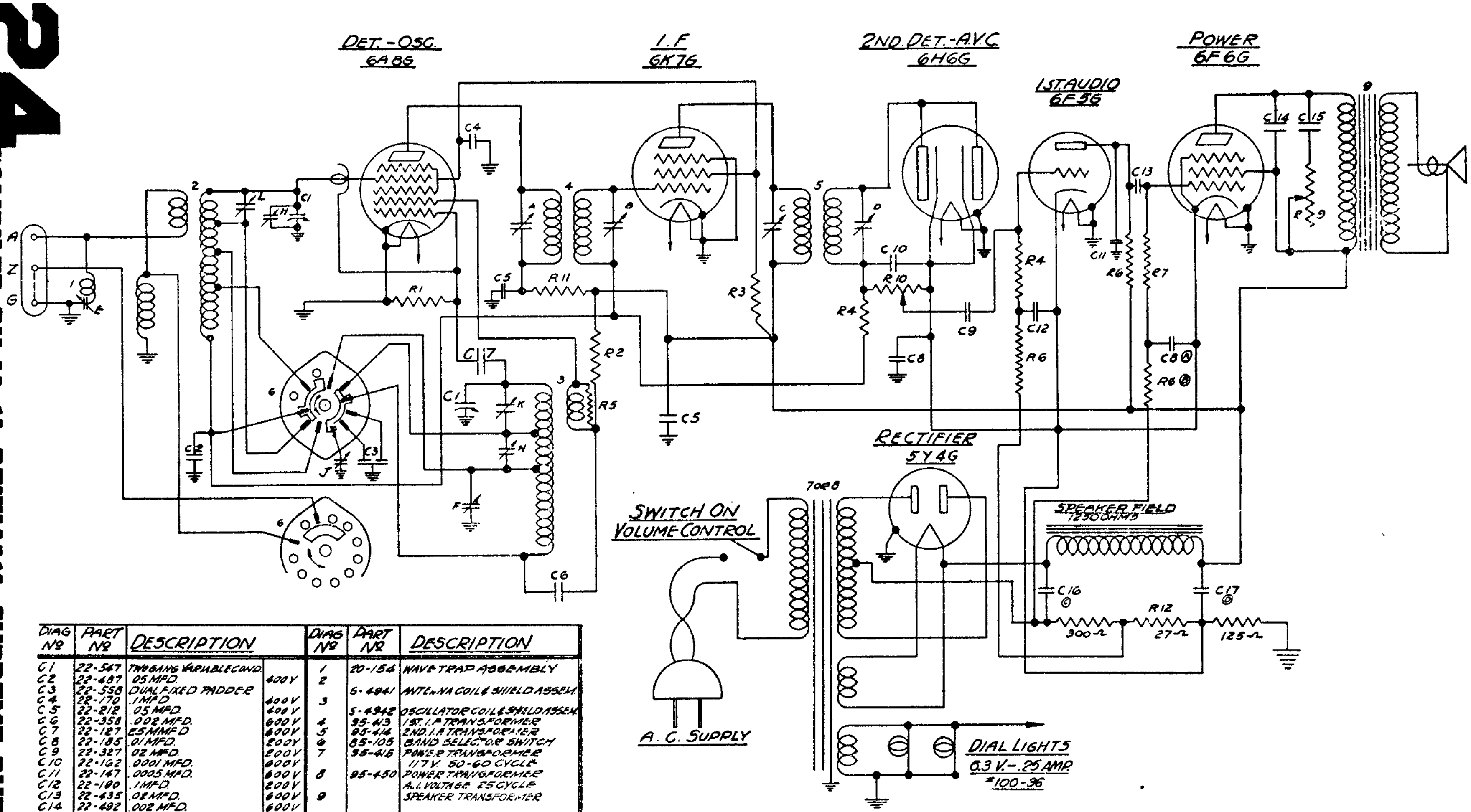
NOTE:— #22-519 16 MFD. DRY ELEC. REPLACE #22-294 WET ELEC. IN MODEL 6S-147 END TABLE

SPEAKERS	MODELS
49-117-8"	6S-128 6S-137
49-118-10"	6S-147 6S-152 6S-157

I.F. FREQUENCY 456 K.C.
6 TUBE SUPERHETERODYNE - 3 BAND
CHASSIS NO 5634

ZENITH RADIO CORPORATION
CHICAGO, ILLINOIS

Models 6-S-203, 6-S-222, 6-S-223, 6-S-229, 6-S-239, 6-S-241 (5638 Chassis)



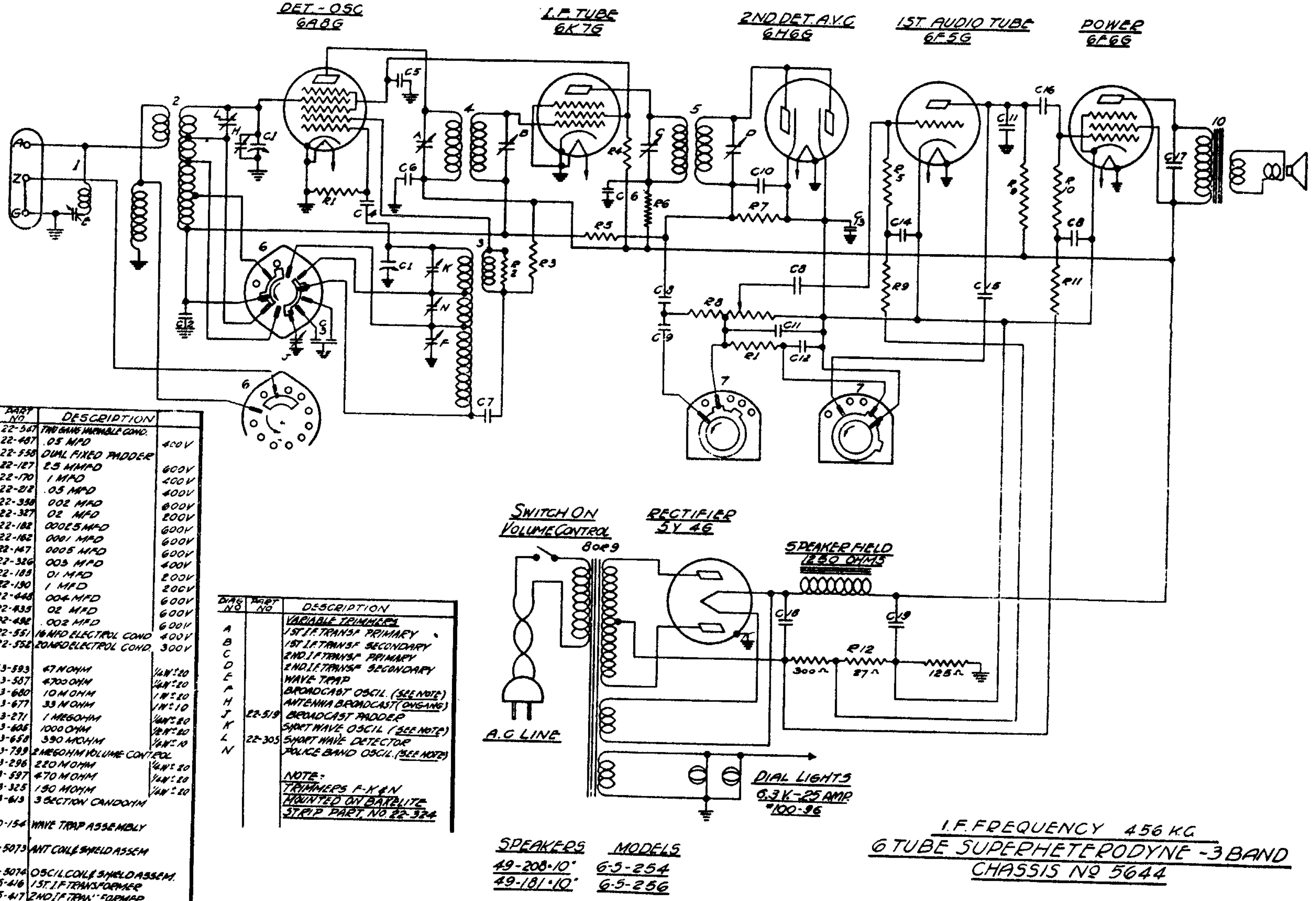
DIAG Nº	PART Nº	DESCRIPTION	
C1	22-547	TWO GANG VARIABLE COND.	
C2	22-487	.05 MFD.	400V
C3	22-558	DUAL FIXED PADDER	
C4	22-170	.1 MFD.	400V
C5	22-212	.05 MFD.	400V
C6	22-358	.002 MFD.	600V
C7	22-127	25 MMFD	600V
C8	22-185	.01 MFD.	200V
C9	22-327	.02 MFD.	200V
C10	22-162	.0001 MFD.	600V
C11	22-147	.0005 MFD.	600V
C12	22-180	.1 MFD.	200V
C13	22-435	.02 MFD.	600V
C14	22-492	.002 MFD.	600V
C15	22-171	.05 MFD	600V
C16	22-596	8 MFD DRY ELECTROLYTIC	450V
C17		16 MFD DRY ELECTROLYTIC	450V
R-1	63-593	47 M OHMS	¼W±20
R-2	63-680	10 M OHMS	1W±20
R-3	63-677	33 M OHMS	1W±10
R-4	63-271	1 MEGOHMS	¼W±20
R-5	63-587	4700 OHMS	¼W±20
R-6	63-286	220 M OHMS	¼W±20
R-7	63-587	470 M OHMS	¼W±20
R-9	63-521	50 M OHMS TONE CONTR.	
R-10	63-520	400 M OHMS VOLUME CONT.	
R-11	63-605	1000 OHMS	¼W±20
R-12	63-613	3 SECTION CANDOHM	

DIAG Nº	PART Nº	DESCRIPTION
1	20-154	WAVE TRAP ASSEMBLY
2	5-4941	ANTENNA COIL & SHIELD ASSEM.
3	5-4942	OSCILLATOR COIL & SHIELD ASSEM.
4	95-413	1ST. I.F TRANSFORMER
5	95-414	2ND. I.F TRANSFORMER
6	85-105	BAND SELECTOR SWITCH
7	95-416	POWER TRANSFORMER 117V. 50-60 CYCLE
8	95-450	POWER TRANSFORMER A.L VOLTAGE 25 CYCLE
9		SPEAKER TRANSFORMER
		VARIABLE TRIMMERS
A		1ST. I.F. TRANSF PRIMARY
B		1ST I.F TRANSF SECONDARY
C		2ND I.F TRANSF PRIMARY
D		2ND I.F TRANSF SECONDARY
E		WAVE TRAP
F		BROADCAST OSCILLATOR (SEE NOTE)
H		ANT. BROADCAST - ON GANG
J	22-519	BROADCAST PADDER
K		SHORT WAVE OSCILLAT. (SEE NOTE)
L	22-305	SHORT WAVE DETECTOR
N		POLICE BAND OSCILLATOR (SEE NOTE)

I.F. FREQUENCY 456 K.C.
6 TUBE SUPERHETERODYNE - 3 BANDS
CHASSIS Nº 5638

ZENITH RADIO CORPORATION

Models 6-S-254, 6-S-256 (5644 Chassis)



I.F. FREQUENCY 456 KC
6 TUBE SUPERHETERODYNE - 3 BAND
CHASSIS No 5644

ZENITH RADIO CORPORATION

SPEAKERS	MODELS
49-208-10'	6-S-254
49-181-10'	6-S-256

DIAG NO	PART NO	DESCRIPTION	
C1	22-567	TWO GANG VARIABLE COND.	
C2	22-487	.05 MFD	400V
C3	22-558	DUAL FIXED PADDER	
C4	22-127	25 MMFD	600V
C5	22-170	1 MFD	400V
C6	22-212	.05 MFD	400V
C7	22-358	.002 MFD	600V
C8	22-327	.02 MFD	200V
C9	22-182	.00025 MFD	600V
C10	22-162	.0001 MFD	600V
C11	22-147	.0005 MFD	600V
C12	22-326	.003 MFD	400V
C13	22-185	.01 MFD	200V
C14	22-190	1 MFD	200V
C15	22-448	.004 MFD	600V
C16	22-435	.02 MFD	600V
C17	22-492	.002 MFD	600V
C18	22-551	16 MFD ELECTROL COND	400V
C19	22-552	20 MFD ELECTROL COND.	300V
R-1	63-593	47 M OHM	1/4W ±20
R-2	63-587	4700 OHM	1/4W ±20
R-3	63-680	10 M OHM	1W ±20
R-4	63-677	33 M OHM	1W ±10
R-5	63-271	1 MEGOHM	1/4W ±20
R-6	63-605	1000 OHM	1/2W ±20
R-7	63-658	390 M OHM	1/4W ±10
R-8	63-799	2 MEGOHM VOLUME CONTROL	
R-9	63-296	220 M OHM	1/4W ±20
R-10	63-597	470 M OHM	1/4W ±20
R-11	63-325	150 M OHM	1/4W ±20
R-12	63-613	3 SECTION CANDOHM	
1	20-154	WAVE TRAP ASSEMBLY	
2	S-5073	ANT COIL & SHIELD ASSEM	
3	S-5074	OSCIL. COIL & SHIELD ASSEM.	
4	95-416	1ST. I.F TRANSFORMER	
5	95-417	2ND I.F TRANSFORMER	
6	85-113	BAND SELECTOR SWITCH	
7	85-108	TONE CONTROL SWITCH	
8	95-438	POWER TRANSF. 117V 50-60 CYCLE	
9	95-456	POWER TRANSF. ALLVOLT 25 CYCLE	
10		SPEAKER TRANSFORMER	

DIAG NO	PART NO	DESCRIPTION
		VARIABLE TRIMMERS
A		1ST I.F. TRANSF PRIMARY
B		1ST I.F. TRANSF SECONDARY
C		2ND. I.F TRANSF PRIMARY
D		2ND. I.F TRANSF SECONDARY
E		WAVE TRAP
F		BROADCAST OSCIL. (SEE NOTE)
H		ANTENNA BROADCAST (ON GANG)
J	22-519	BROADCAST PADDER
K		SHORT WAVE OSCIL (SEE NOTE)
L	22-305	SHORT WAVE DETECTOR
N		POLICE BAND OSCIL. (SEE NOTE)
		NOTE: TRIMMERS F-K & N MOUNTED ON BAKELITE STRIP PART. No. 22-324

ZENITH

3 BAND
550 KC. - 1780 KC.
2100 KC. - 6800 KC.
7000 KC. - 23000 KC.

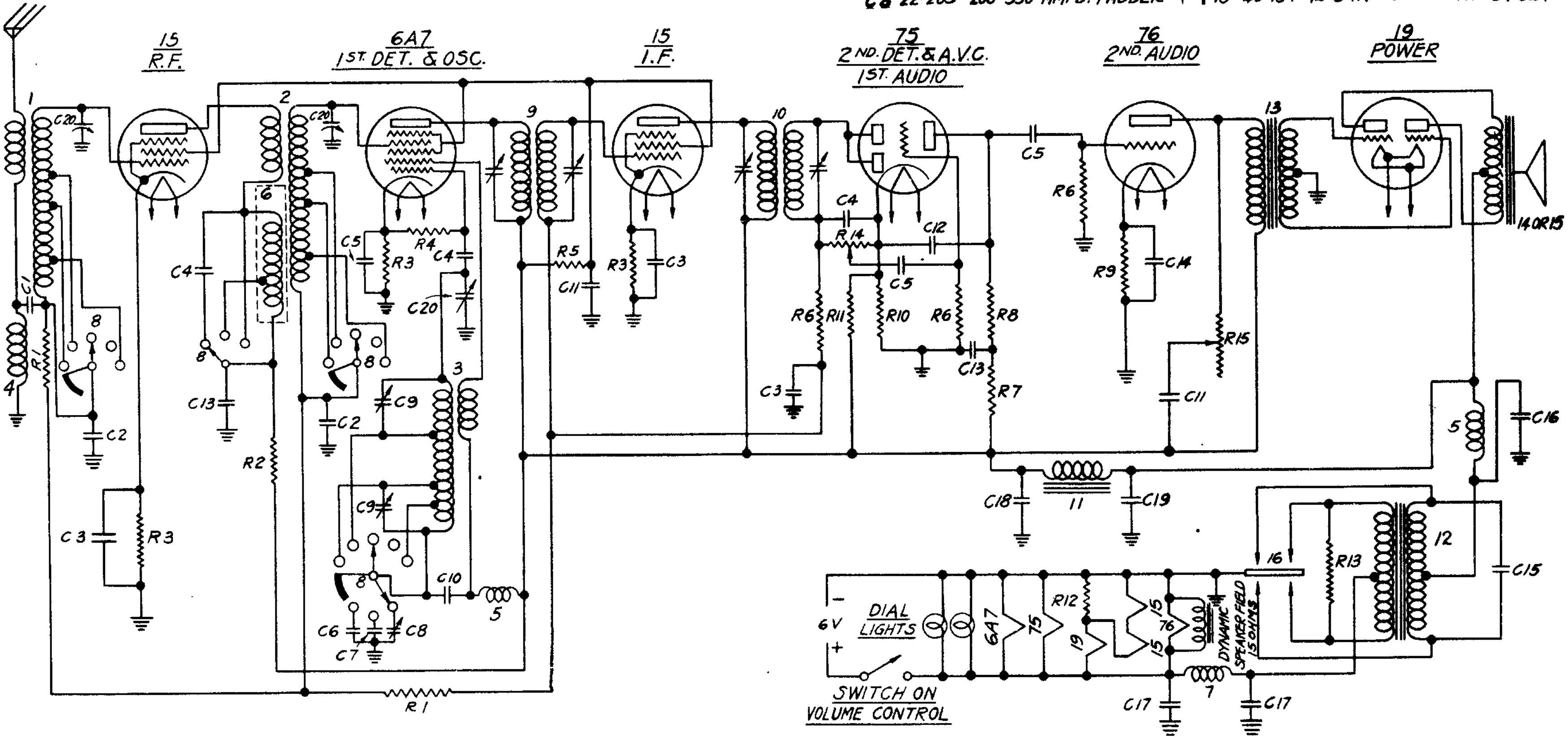
I.F. FREQUENCY 456 KC.
6 TUBE BATTERY SUPERHETERODYNE
CHASSIS Nº 5621

MODELS - 6V27, 6V62

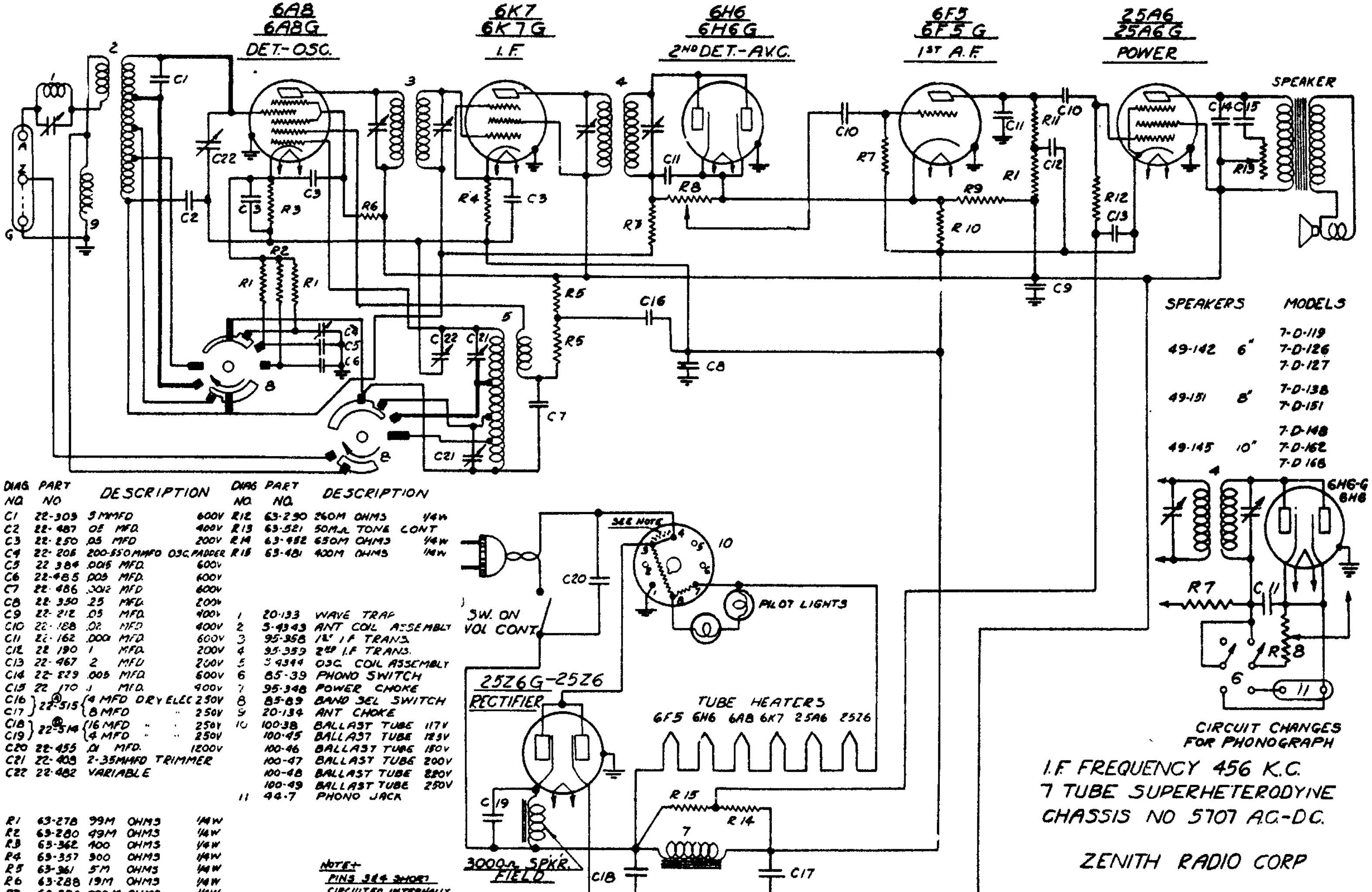
ZENITH RADIO CORP.

DIAG. NO.	PART NUMBER	DESCRIPTION		
R1	63-278	99 M	OHMS	1/4 W.
R2	63-361	5 M	"	1/4 W.
R3	63-362	400	"	1/4 W.
R4	63-280	49 M	"	1/4 W.
R5	63-353	19 M	"	1/2 W.
R6	63-293	990 M	"	1/4 W.
R7	63-290	260 M	"	1/4 W.
R8	63-258	490 M	"	1/4 W.
R9	63-272	4 M	"	1/4 W.
R10	63-238	1 M	"	1/4 W.
R11	63-260	100 M	"	1/4 W.
R12	63-477	100	FLEXIBLE WIRE WOUND	1/4
R13	63-394	200	OHMS	1/2 W.
R14	63-456	200 M	VOL. CONTROL & SWITCH	
R15	63-458	50 M	TONE CONTROL	
C1	22-243	.01	MFD.	400 V.
C2	22-410	.003	"	600 V.
C3	22-250	.05	"	200 V.
C4	22-289	50	MMFD.	600 V.
C5	22-188	.02	MFD.	400 V.
C6	22-411	.0023	"	600 V.
C7	22-345	.0011	"	600 V.
C8	22-205	200-350	MMFD. PADDER	

DIAG. NO.	PART NUMBER	DESCRIPTION		
C9	22-408	2-35 MMFD. PADDER		
C10	22-82	.001	MFD.	600 V.
C11	22-212	.05	"	400 V.
C12	22-182	.00025	"	600 V.
C13	22-224	.1	"	300 V.
C14	22-225	5	"	25 V.
C15	22-437	.01	"	1400 V.
C16	22-228	.5	"	300 V.
C17	22-251	.5	"	200 V.
C18	22-432	8	"	250 V
C19		2	"	
C20	22-409	456 MMF. VAR. COND.		
1	S-3697	ANT. COIL ASSEM.		
2	S-3698	DET. COIL ASSEM.		
3	S-3699	OSC. COIL ASSEM.		
4	20-82	ANT. CHOKE		
5	20-88	R.F. CHOKE		
6	20-119	R.F. PLATE CHOKE		
7	S-2778	R.F. CHOKE		
8	85-78	BAND SELECTOR SWITCH		
9	95-291	1ST. I.F. TRANS.		
10	95-292	2ND. I.F. TRANS.		
11	95-298	POWER CHOKE		
12	95-305	RECTIFIER TRANS.		
13	95-311	AUDIO TRANS.		
14	49-132	8" MAG. SPEAKER	MOD. 6V27	
15	49-134	12" DYN. "	MOD. 6V62	



CIRCUIT DIAGRAM—Models 7-D-119, 7-D-126, 7-D-127, 7-D-138, 7-D-151, 7-D-148, 7-D-162, 7-D-168. (Chassis No. 5707)



DIAG NO.	PART NO	DESCRIPTION	
C1	22-309	5 MMFD	600V
C2	22-487	.05 MFD.	400V
C3	22-250	.05 MFD	200V
C4	22-206	200-550 MMFD OSC. PADDER	
C5	22-384	.0015 MFD.	600V
C6	22-485	.005 MFD.	600V
C7	22-486	.0012 MFD	600V
C8	22-350	.25 MFD.	200V
C9	22-212	.05 MFD.	400V
C10	22-188	.02 MFD	400V
C11	22-162	.0001 MFD.	600V
C12	22-190	1 MFD.	200V
C13	22-467	2 MFD	200V
C14	22-229	.005 MFD.	600V
C15	22-170	.1 MFD.	400V
C16	22-515 Ⓐ	4 MFD DRY ELEC	250V
C17		8 MFD "	250V
C18	22-514 Ⓑ	16 MFD " "	250V
C19		4 MFD " "	250V
C20	22-455	.01 MFD.	1200V
C21	22-409	2-35 MMFD TRIMMER	
C22	22-482	VARIABLE	
R1	63-278	99M OHMS	1/4W
R2	63-280	49M OHMS	1/4W
R3	63-362	400 OHMS	1/4W
R4	63-357	300 OHMS	1/4W
R5	63-361	5M OHMS	1/4W
R6	63-288	19M OHMS	1/4W
R7	63-299	990 M OHMS	1/4W
R8	63-520	400M Ω VOL. CONT.	
R9	63-442	50 M OHMS	1/4W
R10	63-518	590 OHMS	1/4W
R11	63-376	190M OHMS	1/4W

DIAG NO.	PART NO.	DESCRIPTION	
R12	63-290	260M OHMS	1/4W
R13	63-521	50M Ω TONE CONT	
R14	63-482	650M OHMS	1/4W
R15	63-481	400M OHMS	1/4W
1	20-133	WAVE TRAP	
2	5-4343	ANT COIL ASSEMBLY	
3	95-358	1ST I.F TRANS.	
4	95-359	2ND I.F TRANS.	
5	5-4344	OSC. COIL ASSEMBLY	
6	85-39	PHONO SWITCH	
7	95-348	POWER CHOKE	
8	85-89	BAND SEL SWITCH	
9	20-134	ANT CHOKE	
10	100-38	BALLAST TUBE	117V
	100-45	BALLAST TUBE	125V
	100-46	BALLAST TUBE	150V
	100-47	BALLAST TUBE	200V
	100-48	BALLAST TUBE	220V
	100-49	BALLAST TUBE	250V
11	44-7	PHONO JACK	

NOTE:–
PINS 3&4 SHORT CIRCUITED INTERNALLY IN #100-38, #100-45 AND #100-46 ONLY

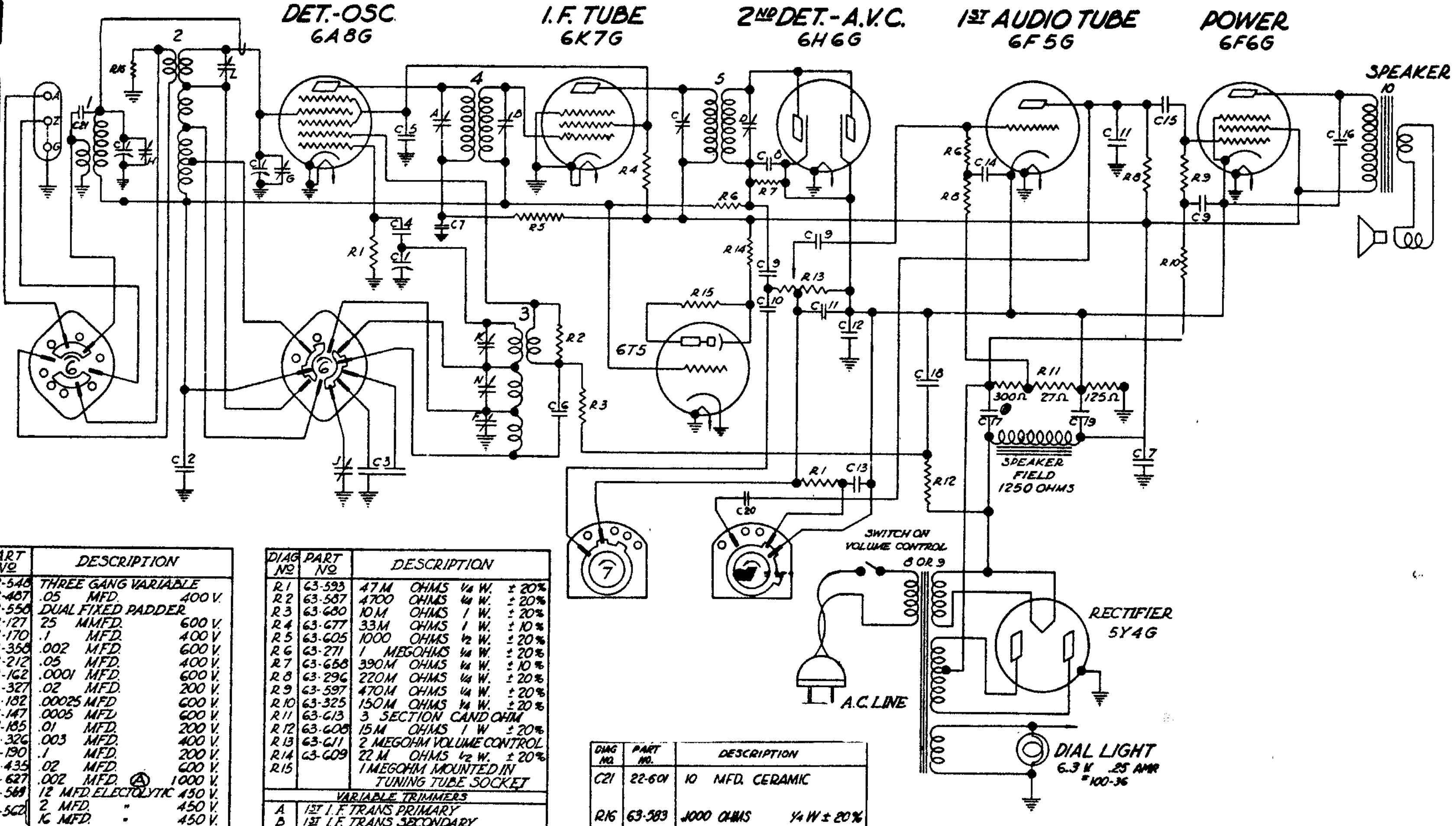
SPEAKERS		MODELS
49-142	6"	7-D-119 7-D-126 7-D-127
49-151	8"	7-D-138 7-D-151
49-145	10"	7-D-148 7-D-162 7-D-168

CIRCUIT CHANGES FOR PHONOGRAPH

I.F. FREQUENCY 456 K.C.
7 TUBE SUPERHETERODYNE
CHASSIS NO 5707 A.C.-D.C.

ZENITH RADIO CORP

Models 7-S-204, 7-S-232, 7-S-240, 7-S-242, 7-S-258, 7-S-260, 7-S-261 (5709 Chassis)



DIAG No	PART No	DESCRIPTION
C1	22-546	THREE GANG VARIABLE
C2	22-487	.05 MFD. 400 V.
C3	22-556	DUAL FIXED PADDER
C4	22-127	25 MMFD. 600 V.
C5	22-170	.1 MFD. 400 V.
C6	22-358	.002 MFD. 600 V.
C7	22-212	.05 MFD. 400 V.
C8	22-162	.0001 MFD. 600 V.
C9	22-327	.02 MFD. 200 V.
C10	22-182	.00025 MFD 600 V.
C11	22-147	.0005 MFD 600 V.
C12	22-185	.01 MFD. 200 V.
C13	22-326	.003 MFD. 400 V.
C14	22-190	.1 MFD. 200 V.
C15	22-435	.02 MFD. 600 V.
C16	22-627	.002 MFD. Ⓐ 1000 V.
C17	22-569	12 MFD. ELECTOLYTIC 450 V.
C18	22-562	2 MFD. " 450 V.
C19		16 MFD. " 450 V.
C20	22-448	.004 MFD. 600 V.
1	S-4780	ANTENNA COIL ASSEMBLY
2	S-5054	DETECTOR COIL & SHIELD ASSEM.
3	S-4969	OSCILLATOR COIL & SHIELD ASSEM.
4	95-416	1ST I.F. TRANS.
5	95-417	2ND I.F. TRANS.
6	85-110	BAND SELECTOR SWITCH
7	85-108	TONE CONTROL SWITCH
8	95-418	POWER TRANS - 117 V. 50-60 CYCLE
9	95-451	POWER TRANS - ALL VOLTAGE 25 CYCLE
10		SPEAKER TRANSFORMER

DIAG No	PART No	DESCRIPTION
R1	63-593	47 M OHMS 1/4 W. ± 20%
R2	63-587	4700 OHMS 1/4 W. ± 20%
R3	63-680	10 M OHMS 1 W. ± 20%
R4	63-677	33 M OHMS 1 W. ± 10%
R5	63-605	1000 OHMS 1/2 W. ± 20%
R6	63-271	1 MEGOHMS 1/4 W. ± 20%
R7	63-658	390 M OHMS 1/4 W. ± 10%
R8	63-296	220 M OHMS 1/4 W. ± 20%
R9	63-597	470 M OHMS 1/4 W. ± 20%
R10	63-325	150 M OHMS 1/4 W. ± 20%
R11	63-613	3 SECTION CANDOHM
R12	63-606	15 M OHMS 1 W ± 20%
R13	63-611	2 MEGOHM VOLUME CONTROL
R14	63-609	22 M OHMS 1/2 W. ± 20%
R15		1 MEGOHM MOUNTED IN TUNING TUBE SOCKET
VARIABLE TRIMMERS		
A	1ST I.F. TRANS PRIMARY	
B	1ST I.F. TRANS SECONDARY	
C	2ND I.F. TRANS PRIMARY	
D	2ND I.F. TRANS SECONDARY	
F	BROADCAST OSCILLATOR (SEE NOTE)	
G	DETECTOR BROADCAST (ON GANG)	
H	ANTENNA BROADCAST (ON GANG)	
J	#22-519 BROADCAST PADDER	
K	SHORT WAVE OSCILLATOR (SEE NOTE)	
L	SHORT WAVE DETECTOR (SEE NOTE)	
N	POLICE BAND OSCILLATOR (SEE NOTE)	

NOTE:-
TRIMMERS F, K, L, & N MOUNTED ON BAKELITE STRIP #22-549

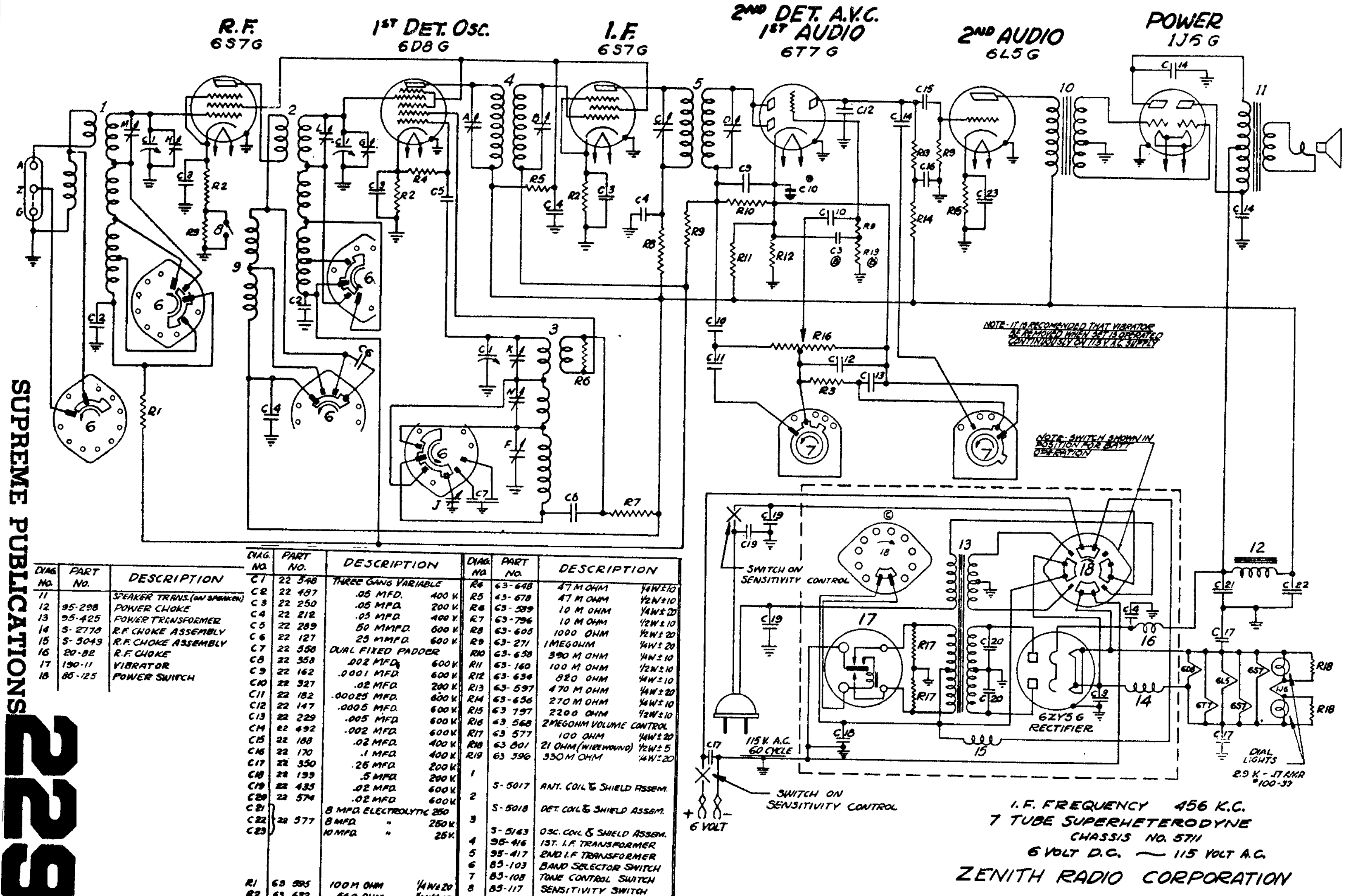
DIAG No.	PART No.	DESCRIPTION
C21	22-601	10 MFD. CERAMIC
R16	63-583	1000 OHMS 1/4 W ± 20%

SPEAKERS		MODELS
49 - 203	8"	7-S-232
49 - 206	8"	7-S-240
49 - 206	8"	7-S-242
49 - 181	10"	7-S-258
49 - 195	12"	7-S-260
49 - 195	12"	7-S-261

I.F. - FREQUENCY 456 K.C.
7 TUBE SUPERHETERODYNE
3 BAND
CHASSIS No 5709

ZENITH RADIO CORP.

Models 7-J-232, 7-J-259 (5711 Chassis)



NOTE - IT IS RECOMENDED THAT VIBRATOR BE REMOVED WHEN SET IS OPERATED CONTINUOUSLY ON 115 V. A.C. SUPPLY

NOTE - SWITCH SHOWN IN POSITION FOR BATT. OPERATION

SWITCH ON SENSITIVITY CONTROL

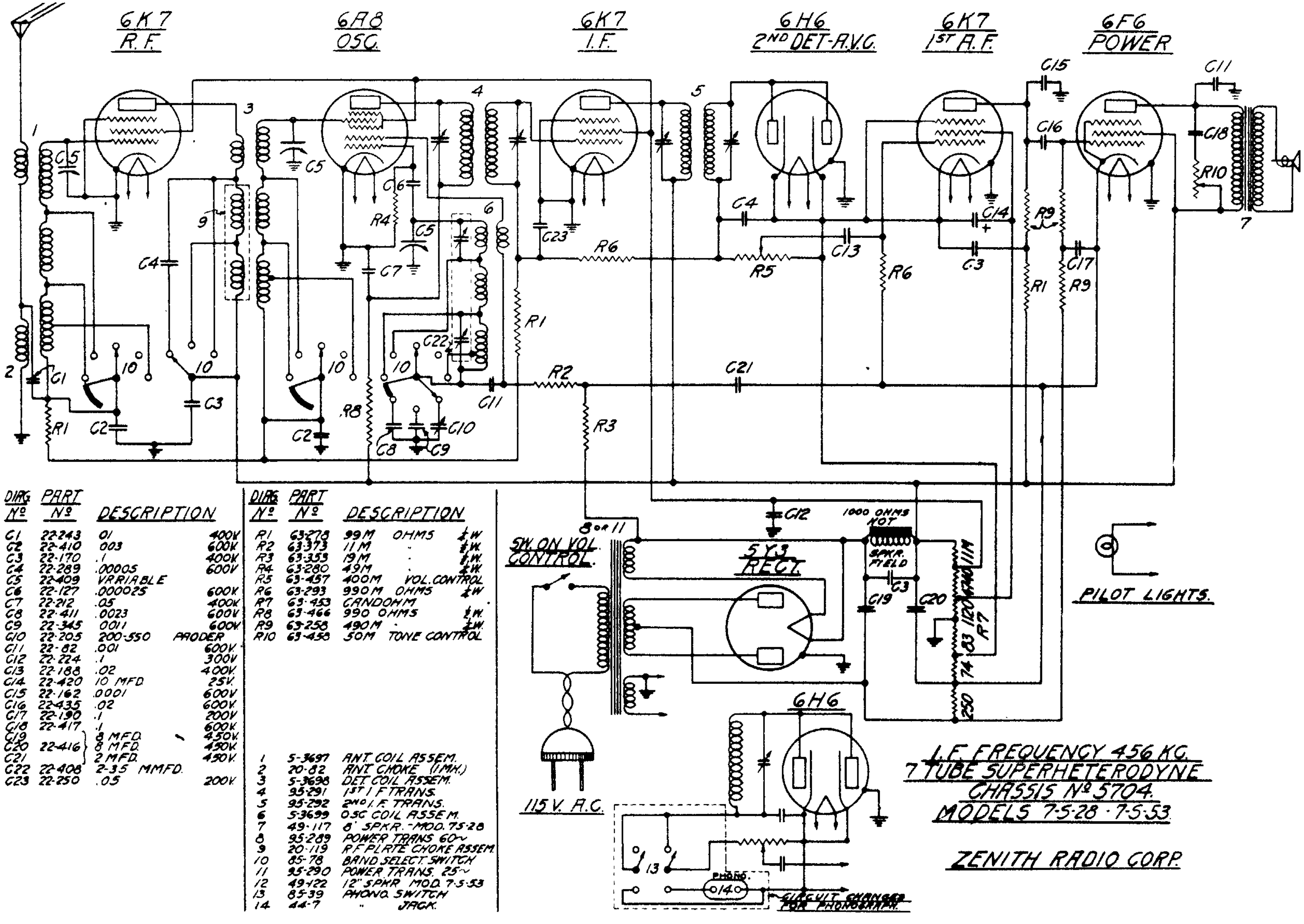
I.F. FREQUENCY 456 K.C.
7 TUBE SUPERHETERODYNE
CHASSIS NO. 5711
6 VOLT D.C. — 115 VOLT A.C.

ZENITH RADIO CORPORATION

DIAG. NO.	PART NO.	DESCRIPTION
11		SPEAKER TRANS. (ON SPEAKER)
12	95-298	POWER CHOKE
13	95-425	POWER TRANSFORMER
14	S-2778	R.F. CHOKE ASSEMBLY
15	S-5049	R.F. CHOKE ASSEMBLY
16	20-82	R.F. CHOKE
17	190-11	VIBRATOR
18	85-125	POWER SWITCH

DIAG. NO.	PART NO.	DESCRIPTION	
C1	22 548	THREE GANG VARIABLE	
C2	22 487	.05 MFD.	400 V.
C3	22 250	.05 MFD.	200 V.
C4	22 212	.05 MFD.	400 V.
C5	22 289	50 MMFD.	600 V.
C6	22 127	25 MMFD.	600 V.
C7	22 558	DUAL FIXED PADDER	
C8	22 358	.002 MFD.	600 V.
C9	22 162	.0001 MFD.	600 V.
C10	22 327	.02 MFD.	200 V.
C11	22 182	.00025 MFD.	600 V.
C12	22 147	.0005 MFD.	600 V.
C13	22 229	.005 MFD.	600 V.
C14	22 492	.002 MFD.	600 V.
C15	22 168	.02 MFD.	400 V.
C16	22 170	.1 MFD.	400 V.
C17	22 350	.26 MFD.	200 V.
C18	22 199	.5 MFD.	200 V.
C19	22 435	.02 MFD.	600 V.
C20	22 574	.02 MFD.	600 V.
C21	22 577	8 MFD. ELECTROLYTIC	250
C22		8 MFD. "	250 V.
C23		10 MFD. "	25 V.
R1	63 595	100 M OHM	1/4 W ± 20
R2	63 632	560 OHM	1/4 W ± 10
R3	63 593	47 M OHM	1/4 W ± 20

DIAG. NO.	PART NO.	DESCRIPTION	
R4	63-648	47 M OHM	1/4 W ± 10
R5	63-678	47 M OHM	1/2 W ± 10
R6	63-589	10 M OHM	1/4 W ± 20
R7	63-796	10 M OHM	1/2 W ± 10
R8	63-605	1000 OHM	1/2 W ± 20
R9	63-271	1 MEGOHM	1/4 W ± 20
R10	63-658	390 M OHM	1/4 W ± 10
R11	63-160	100 M OHM	1/2 W ± 10
R12	63-634	820 OHM	1/4 W ± 10
R13	63-597	470 M OHM	1/4 W ± 20
R14	63-656	270 M OHM	1/4 W ± 10
R15	63 797	2200 OHM	1/2 W ± 10
R16	63 568	2 MEGOHM VOLUME CONTROL	
R17	63 577	100 OHM	1/4 W ± 20
R18	63 801	21 OHM (WIREWOUND)	1/2 W ± 5
R19	63 596	330 M OHM	1/4 W ± 20
1	S-5017	ANT. COIL & SHIELD ASSEM.	
2	S-5018	DET. COIL & SHIELD ASSEM.	
3	S-5163	OSC. COIL & SHIELD ASSEM.	
4	95-416	1ST. I.F. TRANSFORMER	
5	95-417	2ND I.F. TRANSFORMER	
6	85-103	BAND SELECTOR SWITCH	
7	85-108	TONE CONTROL SWITCH	
8	85-117	SENSITIVITY SWITCH	
9	20-135	R.F. CHOKE	
10	95-446	AUDIO TRANSFORMER	

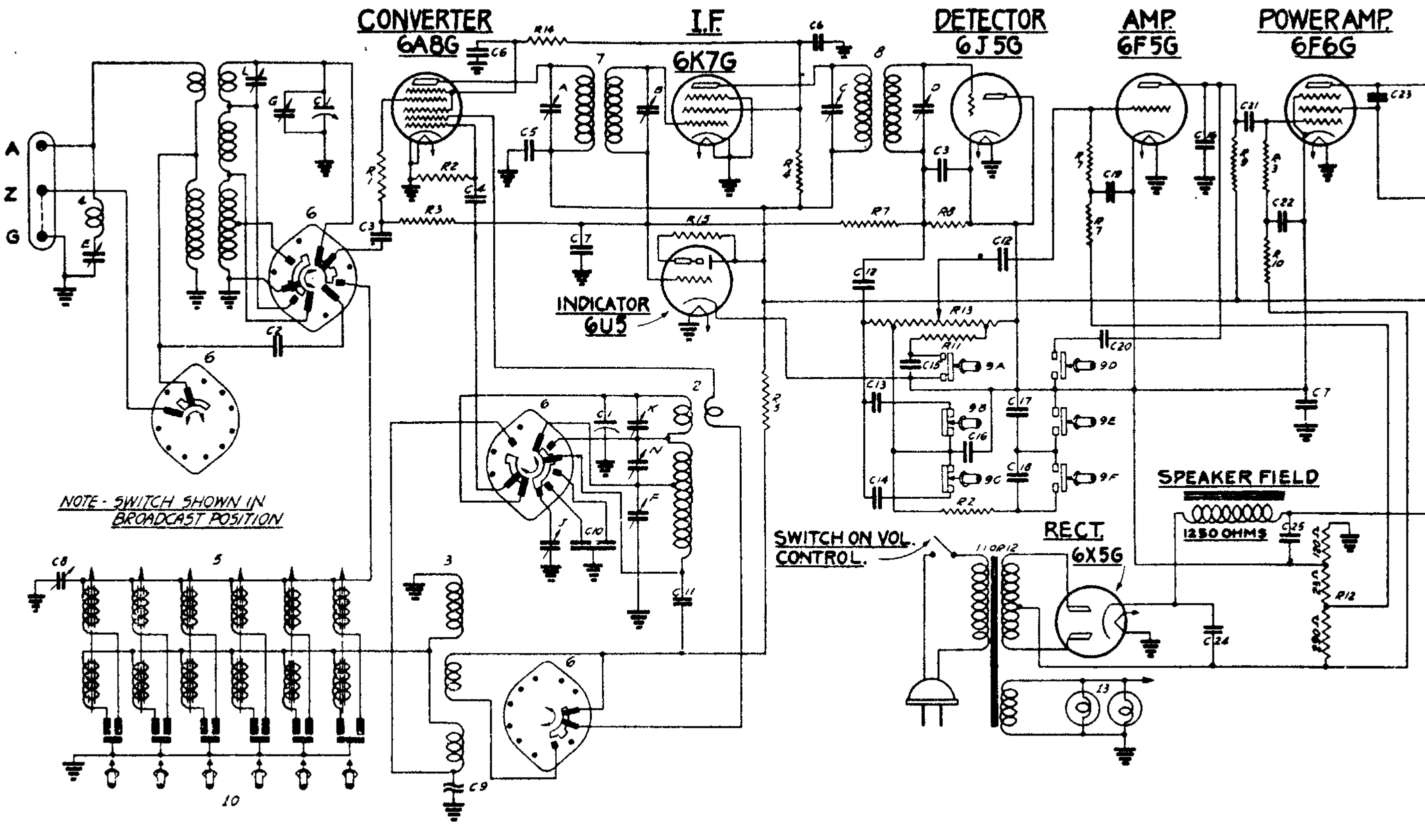


I.F. FREQUENCY 456 KC.
7 TUBE SUPERHETERODYNE
CHASSIS Nº 5704.
MODELS 7-5-28 · 7-5-53

ZENITH RADIO CORP.

DIAG. Nº	PART Nº	DESCRIPTION
C1	22-243	01 400V
C2	22-410	003 600V
C3	22-170	.1 400V
C4	22-289	.00005 600V
C5	22-409	VARIABLE
C6	22-127	.000025 600V
C7	22-212	.05 400V
C8	22-411	.0023 600V
C9	22-345	0011 600V
C10	22-205	200-550 PADDER
C11	22-82	.001 600V.
C12	22-224	.1 300V
C13	22-188	.02 400V.
C14	22-420	10 MFD. 25V.
C15	22-162	.0001 600V
C16	22-435	.02 600V.
C17	22-190	.1 200V
C18	22-417	.1 600V
C19	22-416	8 MFD. 450V.
C20		8 MFD. 450V.
C21		2 MFD. 450V.
C22	22-408	2-35 MMFD.
C23	22-250	.05 200V.

DIAG. Nº	PART Nº	DESCRIPTION
R1	63-278	99M OHMS ¼W
R2	63-373	11M " ¼W.
R3	63-353	19M " ¼W.
R4	63-280	49M " ¼W
R5	63-457	400M VOL. CONTROL
R6	63-293	990M OHMS ¼W
R7	63-453	CANDOHM
R8	63-466	990 OHMS ¼W.
R9	63-258	490M " ¼W.
R10	63-458	50M TONE CONTROL
1	5-3697	ANT. COIL ASSEM.
2	20-82	ANT. CHOKE (1MH.)
3	5-3698	DET. COIL ASSEM.
4	95-291	1ST I.F. TRANS.
5	95-292	2ND I.F. TRANS.
6	5-3699	OSC. COIL ASSEM.
7	49-117	8" SPKR. - MOD. 7-5-28
8	95-289	POWER TRANS. 60~
9	20-119	R.F. PLATE CHOKE ASSEM.
10	85-78	BAND SELECT SWITCH
11	95-290	POWER TRANS. 25~
12	49-122	12" SPKR. MOD. 7-5-53
13	85-39	PHONO. SWITCH
14	44-7	" JACK.



NOTE - 9A ALTO
9B TREBLE
9C VOICE
9D NORMAL
9E LOW BASS
9F BASS

SPEAKER	MODEL
49-179-8"	7S-323
49-251-10"	7S-342
49-251-10"	7S-343
49-208-10"	7S-363
49-249-12"	7S-366
49-266-12"	7S-364

Chassis No. 5714

I.F. FREQUENCY 455 K.C.
7 TUBE SUPERHETERODYNE
CHASSIS Nº 5714-A.C. 3-BAND
ZENITH RADIO CORPORATION

DIAG NO	PART NO	DESCRIPTION	
C-1	22-717	TWO GANG VAR COND.	
C-2	22-289	50 MMFD	600V
C-3	22-162	.0001 MFD	600V
C-4	22-127	25 MMFD	600V
C-5	22-170	.1 MFD	600V
C-6	22-212	.05 MFD	400V
C-7	22-250	.05 MFD	200V
C-8	22-519	TRIMMER COND	
C-9	22-760	COMPENSATING COND	
C-10	22-708	DUAL FIXED PADDER	
C-11	22-358	.002 MFD	600V
C-12	22-327	.02 MFD.	200V
C-13	22-182	.00025 MFD	600V
C-14	22-470	.00015 MFD	600V
C-15	22-185	.01 MFD	200V
C-16	22-147	.0005 MFD	600V
C-17	22-458	.006 MFD	600V
C-18	22-326	.003 MFD	600V
C-19	22-190	.1 MFD	200V
C-20	22-444	.004 MFD.	600V

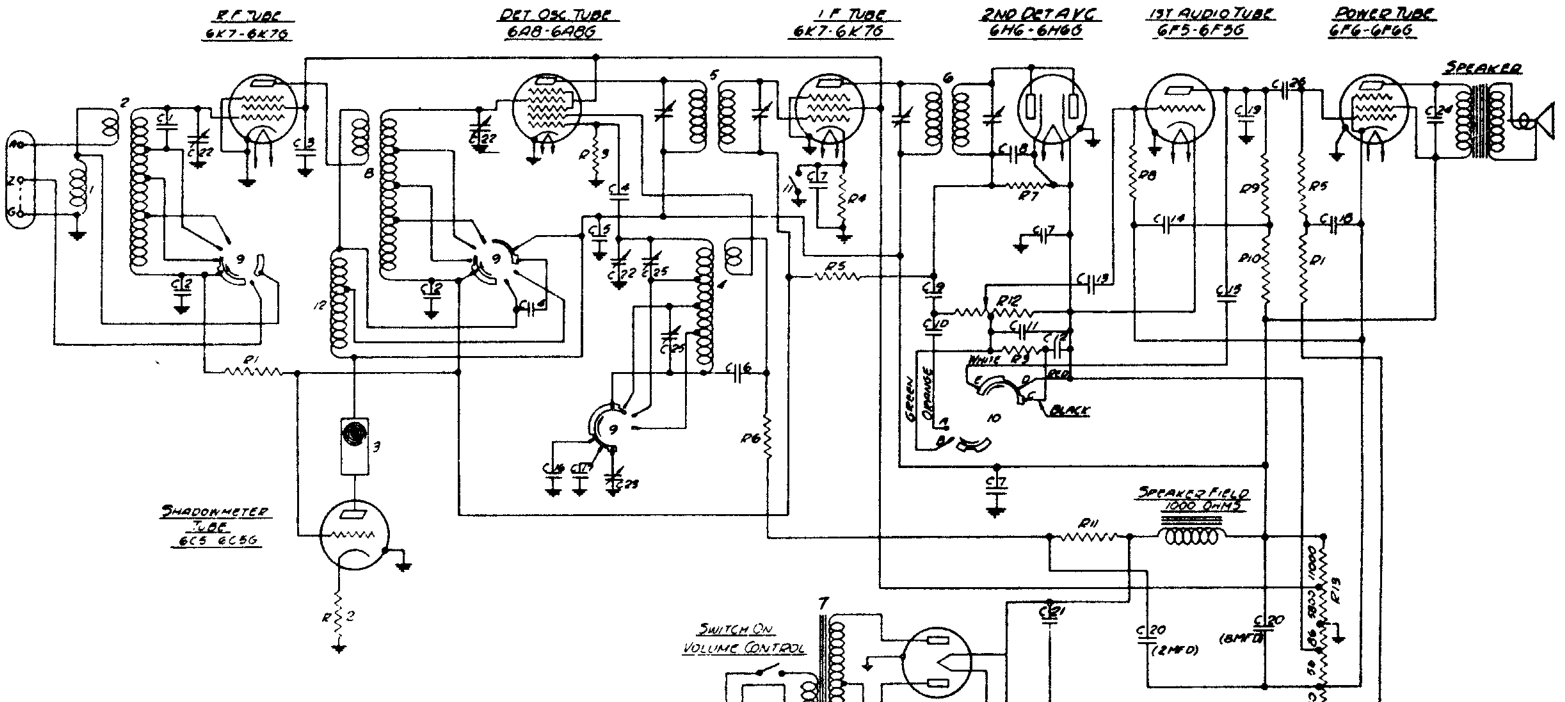
DIAG NO	PART NO	DESCRIPTION	
C-21	22-435	.02 MFD	600V
C-22	22-218	.03 MFD	200V
C-23	22-402	.002 MFD	600V
C-24	22-718	12 MFD ELECTROLYTIC	450V
C-25	22-719	16 MFD ELECTROLYTIC	350V
R-1	63-621	39 OHM	¼W
R-2	63-592	33 M OHM	½W
R-3	63-597	470 M OHM	½W
R-4	63-961	47 M OHM	1W
R-5	63-680	10 M OHM	1W
R-7	63-271	1 MEGOHM	¼W
R-8	63-655	220 M OHM	¼W
R-9	61-296	220 M OHM	¼W
R-10	63-505	100 M OHM	¼W
R-11	63-591	22 M OHM	¼W
R-12	63-984	3 SECTION CANDOHM	

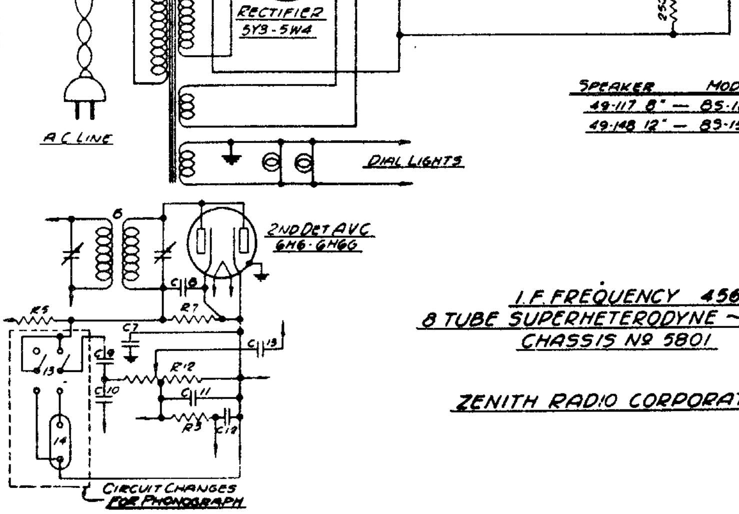
DIAG NO	PART NO	DESCRIPTION	
R-13	63-985	VOLUME CONTROL	
R-14	63-643	18 M OHM	¼W
R-15		1 MEGOHM MOUNTED IN TUNING TUBE BASE	
1	S-6204	ANTENNA COIL & SHIELD ASSEM	
2	S-6295	OSC. COIL & SHIELD ASSEM	
3	20-196	COMPENSATING COIL	
4	20-154	WAVE TRAP	
5			
6	85-151	BAND SELECTOR SWITCH	
7	95-536	1ST I.F. TRANSFORMER	
8	95-537	2ND I.F. TRANSFORMER	
9	S-6224	TONE CONTROL SW. ASSEM.	
10	85-152	AUTOMATIC TUNING SWITCH	
11	95-526	POWER TRANS-117V-50-60 ~	
12	95-535	POWER TRANS ALLVOLTAGE 25 ~	
13	100-16	PILOT LIGHT .25A-6.3V	
14		SPEAKER TRANS.	

DIAG NO	PART NO	DESCRIPTION
A		1ST I.F. TRANS. PRY
B		1ST I.F. TRANS. SEC
C		2ND I.F. TRANS. PRY
D		2ND I.F. TRANS. SEC
E		WAVE TRAP
F		BROADCAST OSC (SEE NOTE)
G		ANTENNA BROADCAST (ON GANG)
J	22-463	BROADCAST PADDER
K		SHORT WAVE OSC (SEE NOTE)
L	22-305	SHORT WAVE DETECTOR
N		POLICE BAND OSC (SEE NOTE)

NOTE - TRIMMERS "F-K & N" MOUNTED ON BAKELITE STRIP - PART Nº 22-324

Models 8-S-129, 8-S-15-. (Chassis No. 5801)



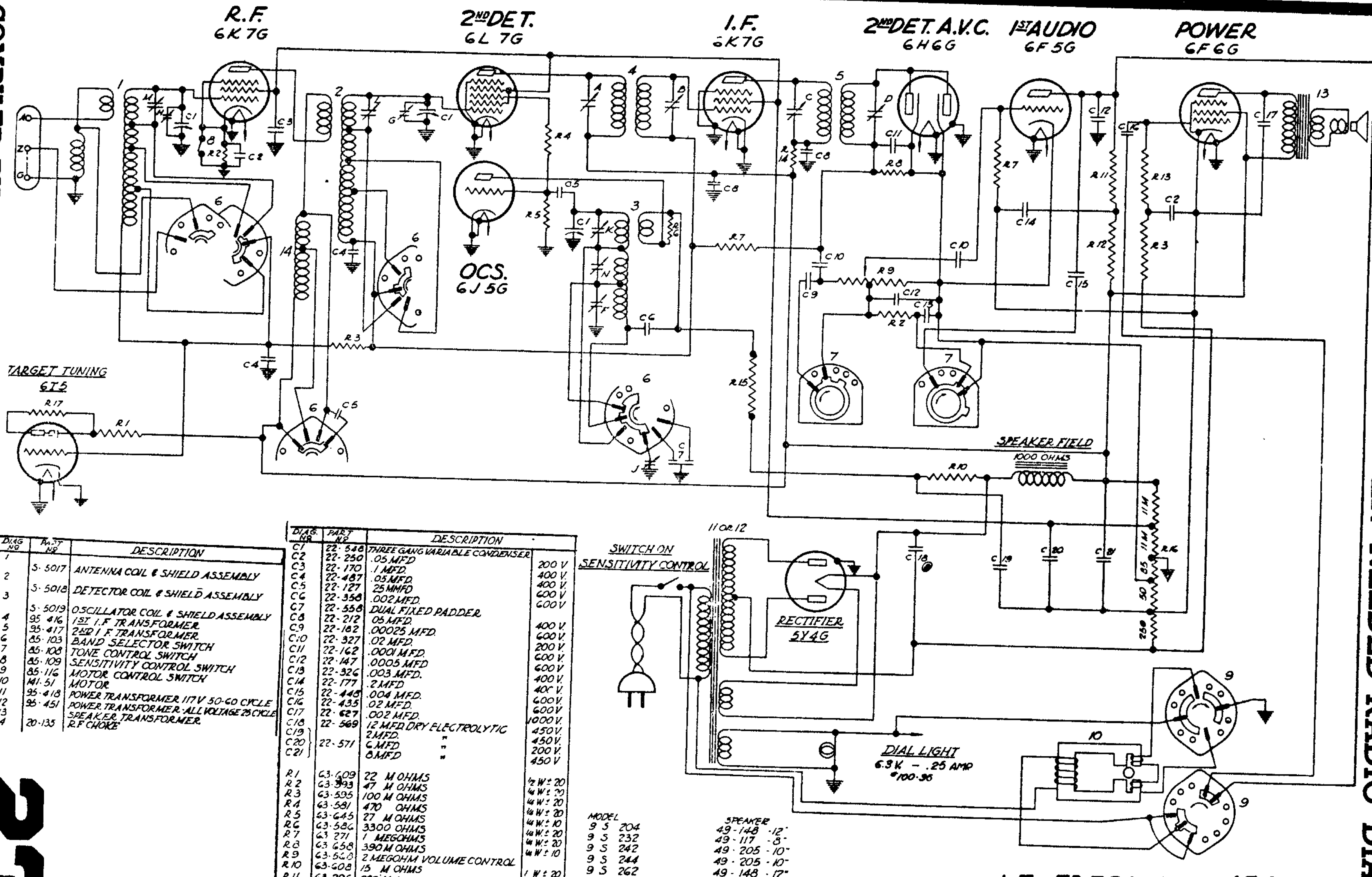


DIAG No	PART No	DESCRIPTION		DIAG No	PART No	DESCRIPTION	
C1	22 903	5 MMFD	600V				
C2	487	05 MFD	400V				
C3	224	1 MFD	300V	1	20-71	ANTENNA CHOKE	
C4	127	25 MMFD	600V	2	S-4419	ANTENNA COIL ASSEM	
C5	170	1 MFD	400V	3	122-15	TUNING METER	
C6	486	0012 MFD	600V	4	S-4420	OSCILLATOR COIL ASSEM	
C7	243	01 MFD	400V	5	95-353	1ST I F TRANSFORMER	
C8	289	50 MMFD	600V	6	95 354	2ND I F TRANSFORMER	
C9	250	05 MFD	200V	7	95-289	POWER TRANSFORMER 115V 50 60 CYCLE	
C10	182	00025 MFD	600V	-	95 290	POWER TRANSFORMER 25 CYCLE ALL VOLT	
C11	147	0005 MFD	600V	8	94421	DETECTOR COIL ASSEM	
C12	326	005 MFD	400V	9	85-93	BAND SELECTOR SWITCH	
C13	188	02 MFD	400V	10	85 92	TONE CONTROL SWITCH	
C14	495	2 MFD	400V	11	85-91	SENSITIVITY CONTROL SWITCH	
C15	492	002 MFD	600V	12	20-195	R F PLATE CHOKE	
C16	485	005 MFD	600V	13	85-39	PHONOGRAPH SWITCH	
C17	384	0015 MFD	600V	14	44 7	PHONOGRAPH JACK	
C18	219	03 MFD	200V				
C19	162	0001 MFD	600V				
C20	491	8+2 MFD DRY ELEC	450V				
C21	294	16 MFD WET ELEC COND	450V	R1	63-278	99 M OHMS	¼ W
C22	488	3 GANG VARIABLE COND		R2	909	700 OHMS	¼ W
C23	205	200-550 MMFD PADDER		R3	280	49 M OHMS	¼ W
C24	229	005 MFD	600V	R4	261	9900 OHMS	¼ W
C25	408	2 35 MMFD TRIMMER		R5	293	990 M OHMS	¼ W
C26	485	02 MFD	600V	R6	373	11 M OHMS	½ W
				R7	481	400 M OHMS	¼ W
				R8	529	2 MEGOHMS	¼ W
				R9	258	490 M OHMS	¼ W
				R10	376	190 M OHMS	¼ W
				R11	959	19 M OHMS	½ W
				R12	522	2 MEGOHM VOL CONTROL & SWITCH	
				R13	515	CANDOHM RESISTOR	

SPEAKER	MODEL
49-117 8"	8S-129
49-148 12"	8S-154

I.F. FREQUENCY 456 K.C.
8 TUBE SUPERHETERODYNE ~ 3 BAND
CHASSIS No 5801

ZENITH RADIO CORPORATION



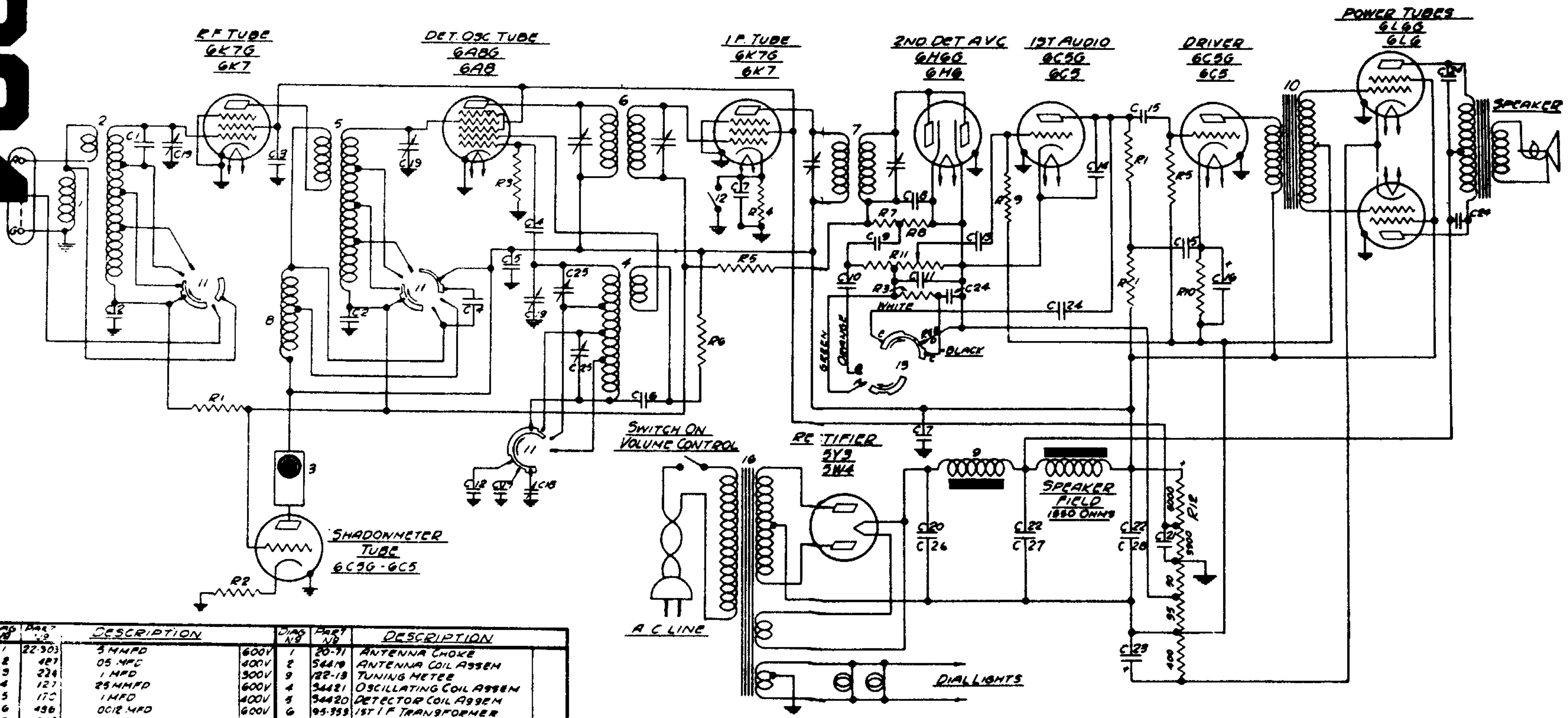
I.F.-FREQUENCY 456 K.C.
9 TUBE SUPERHETERODYNE
3 BAND
CHASSIS No 5905

DIAG NO	PART NO	DESCRIPTION
1	5-5017	ANTENNA COIL & SHIELD ASSEMBLY
2	5-5018	DETECTOR COIL & SHIELD ASSEMBLY
3	5-5019	OSCILLATOR COIL & SHIELD ASSEMBLY
4	95-416	1ST I.F. TRANSFORMER
5	95-417	2ND I.F. TRANSFORMER
6	85-103	BAND SELECTOR SWITCH
7	85-108	TONE CONTROL SWITCH
8	85-109	SENSITIVITY CONTROL SWITCH
9	85-116	MOTOR CONTROL SWITCH
10	M1-51	MOTOR
11	95-418	POWER TRANSFORMER 117V 50-60 CYCLE
12	95-451	POWER TRANSFORMER-ALL VOLTAGE 25 CYCLE
13		SPEAKER TRANSFORMER
14	20-135	R.F. CHOKE

DIAG. NO	PART NO	DESCRIPTION	
C1	22-548	THREE GANG VARIABLE CONDENSER	
C2	22-250	.05 MFD	200 V
C3	22-170	.1 MFD.	400 V.
C4	22-487	.05 MFD.	400 V.
C5	22-127	25 MMFD	600 V
C6	22-358	.002 MFD.	600 V
C7	22-558	DUAL FIXED PADDER	
C8	22-212	.05 MFD.	400 V.
C9	22-182	.00025 MFD.	600 V.
C10	22-327	.02 MFD.	200 V.
C11	22-162	.0001 MFD.	600 V.
C12	22-147	.0005 MFD	600 V
C13	22-326	.003 MFD.	400 V.
C14	22-177	.2 MFD	400 V.
C15	22-445	.004 MFD.	600 V.
C16	22-435	.02 MFD.	600 V
C17	22-627	.002 MFD.	1000 V.
C18	22-569	12 MFD. DRY ELECTROLYTIC	450 V.
C19	22-571	2 MFD. "	450 V.
C20		6 MFD "	200 V.
C21		8 MFD "	450 V
R1	63-609	22 M OHMS	½ W ± 20
R2	63-393	47 M OHMS	¼ W ± 20
R3	63-595	100 M OHMS	¼ W ± 20
R4	63-581	470 OHMS	¼ W ± 20
R5	63-645	27 M OHMS	¼ W ± 10
R6	63-586	3300 OHMS	¼ W ± 20
R7	63-271	1 MEGOHMS	¼ W ± 20
R8	63-658	390 M OHMS	¼ W ± 10
R9	63-568	2 MEGOHM VOLUME CONTROL	
R10	63-608	15 M OHMS	1 W ± 20
R11	63-296	220 M OHMS	¼ W ± 20
R12	63-654	180 M OHMS	¼ W ± 10
R13	63-597	470 M OHMS	¼ W ± 20
R14	63-605	1000 OHMS	½ W ± 20
R15	63-680	10 M OHMS	1 W ± 20
R16	63-570	5 SECTION CANDOHM	
R17		1 MEGOHM MOUNTED IN TUNING TUBE SOCKET	

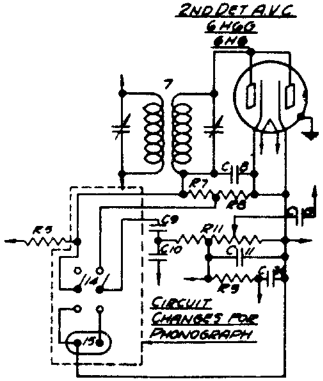
MODEL	SPEAKER
9 S 204	49-148 - 12"
9 S 232	49-117 - 8"
9 S 242	49-205 - 10"
9 S 244	49-205 - 10"
9 S 262	49-148 - 12"
9 S 263	49-148 - 12"
9 S 264	49-148 - 12"

Models 9-S-203, 9-S-232, 9-S-242, 9-S-244, 9-S-262, 9-S-263, 9-S-264 (5905 Chassis)



DIAG NO	PART NO	DESCRIPTION		DIAG NO	PART NO	DESCRIPTION	
C1	22-303	5 MMFD	600V	1	20-71	ANTENNA CHOKE	
C2	427	05 MFD	400V	2	S4419	ANTENNA COIL ASSEM	
C3	224	1 MFD	300V	3	22-13	TUNING METER	
C4	127	25 MMFD	600V	4	S4421	OSCILLATING COIL ASSEM	
C5	170	1 MFD	400V	5	S4420	DETECTOR COIL ASSEM	
C6	436	0012 MFD	600V	6	95-353	1ST I F TRANSFORMER	
C7	243	01 MFD	400V	7	95-354	2ND I.F TRANSFORMER	
C8	289	50 MMFD	600V	8	20-135	R F PLATE CHOKE	
C9	250	.05 MFD	200V	9	95-356	POWER CHOKE	
C10	182	00025 MFD	600V	10	95-360	AUDIO TRANSFORMER	
C11	147	0005 MFD	600V	11	85-93	BAND SELECTOR SWITCH	
C12	485	005 MFD	600V	12	85-91	SENSITIVITY CONT. SWITCH	
C13	188	02 MFD	400V	13	85-92	TONE CONTROL SWITCH	
C14	162	0001 MFD	600V	14	85-99	PHONOGRAPH SWITCH	
C15	455	02 MFD	600V	15	44-7	PHONOGRAPH JACK	
C16	507	10 MFD DRY ELEC COND	25V	16	95-355	POWER TRANS 115V 50-60 CYCLE	
C17	384	0015 MFD	600V		95-365	POWER TRANS 25 CYCLE - ALL VOLTAGE	
C18	205	200-550 MMFD OSC PADDER					
C19	488	3 GANG VARIABLE COND					
C20	504	8 MFD WET ELEC. COND 60 CYCLE	450V				
C21	506	16 MFD WET ELEC COND	250V				
C22	493	8x8 MFD DRY ELEC COND 60~	450V				
C23	405	10 MFD DRY ELEC COND	50V				
C24	229	005 MFD	600V				
C25	408	2-35 MMFD TRIMMER					
R1	63-278	99 M OHMS	1/4 W				
R2	305	700 OHMS	1/4 W				
R3	280	49 M OHMS	1/4 W				
R4	261	9900 OHMS	1/4 W				
R5	293	990 M OHMS	1/4 W				
R6	273	11 M OHMS	1/2 W				
R7	280	100 M OHMS	1/4 W				
R8	385	300 M OHMS	1/4 W				
R9	523	2 MEGOHMS	1/4 W				
R10	300	990 OHMS	1/4 W				
R11	522	2 MEGOHM VOLUME CONT & SW					
R12	516	CANDOHM RESISTOR					
				C26	22-294	16 MFD WET ELEC COND 25 CYCLE	450V
				C27	22-502	16 MFD DRY ELEC COND 25 CYCLE	450V
				C28	22-502	8 MFD DRY ELEC COND 25 CYCLE	450V

NOTE — #22-510 8x8x8 MFD DRY ELECTROLYTIC REPLACES #22-493 & #22-506. #22-512 8 MFD DRY ELECTROLYTIC REPLACES #22-504 8 MFD WET ELECTROLYTIC IN MODEL #10S-147 END TABLE.



CIRCUIT CHANGES FOR PHONOGRAPH

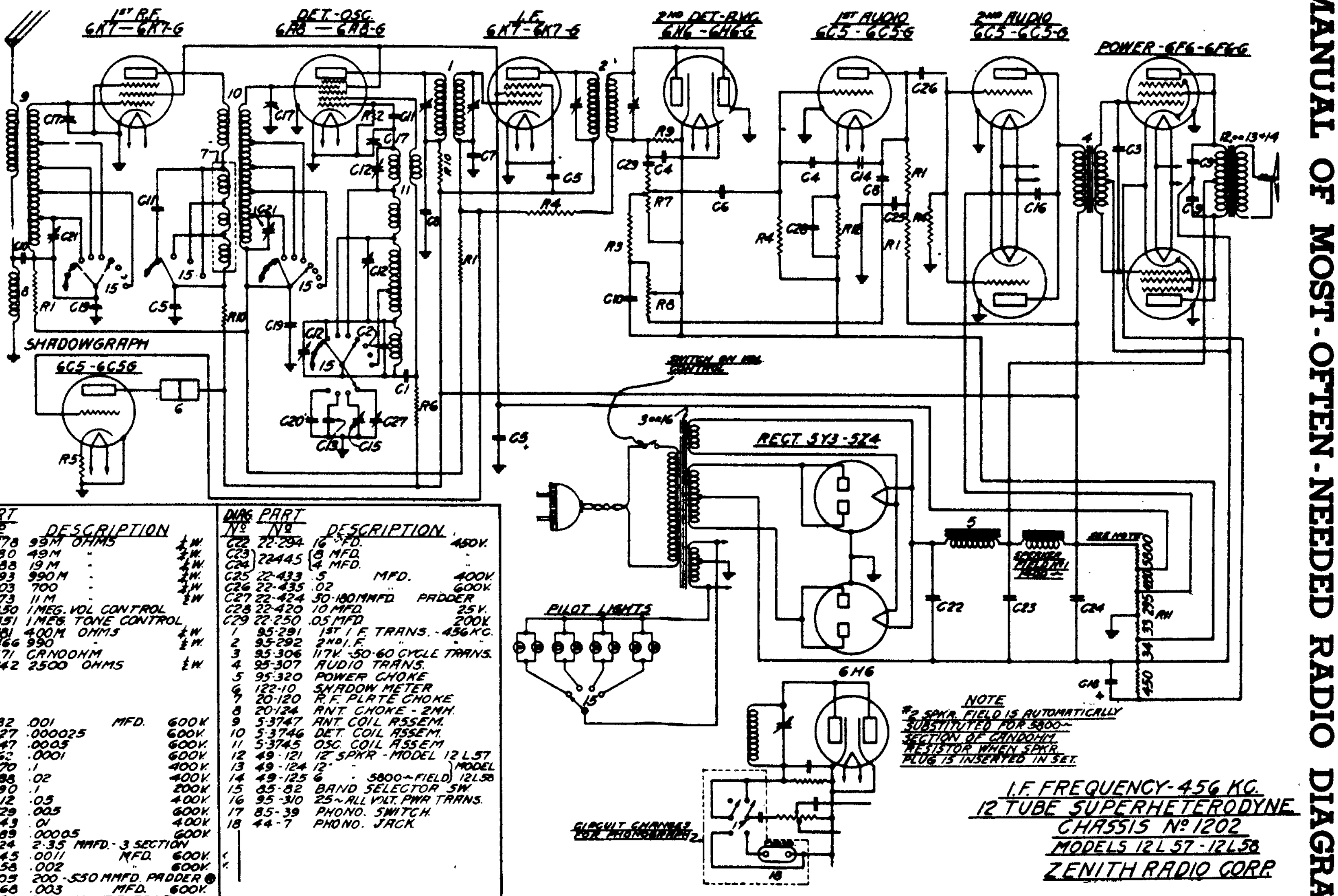
(Chassis No. 1004)

SPEAKER		MODEL
49-146	8"	10S130
49-147	12"	10S155 10S156 10S160
49-156	12"	10S147 10S153 10S157

I.F. FREQUENCY 456 KC.
10 TUBE SUPERHETERODYNE — 3 BAND
CHASSIS No 1004

ZENITH RADIO CORPORATION

Models 10-S-30, 10-S-155, 10-S-156, 10-S-160, 10-S-147, 10-S-153, 10-S-157.



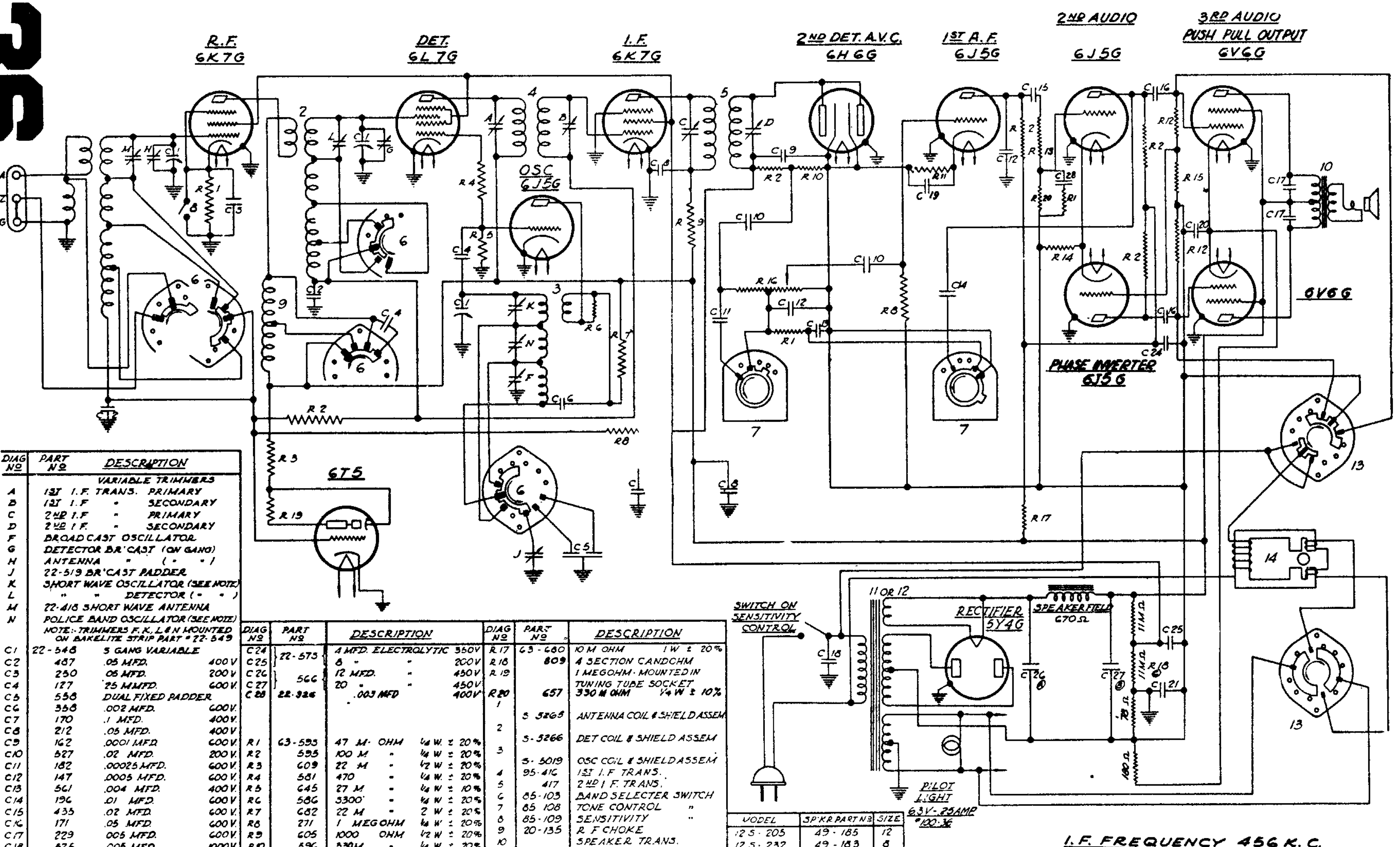
DIAG Nº	PART Nº	DESCRIPTION	
R1	63-278	99M OHMS	¼W.
R2	63-280	49M "	¼W.
R3	63-288	19M "	¼W.
R4	63-293	990M "	¼W.
R5	63-303	700 "	¼W.
R6	63-373	11M "	½W.
R7	63-450	1 MEG. VOL CONTROL	
R8	63-451	1 MEG. TONE CONTROL	
R9	63-481	400M OHMS	¼W.
R10	63-466	990 "	½W.
R11	63-471	CANDOHM	
R12	63-242	2500 OHMS	½W.
C1	22-82	.001 MFD.	600V.
C2	22-127	.000025	600V.
C3	22-147	.0005	600V.
C4	22-162	.0001	600V.
C5	22-170	.1	400V.
C6	22-188	.02	400V.
C7	22-190	.1	200V.
C8	22-212	.05	400V.
C9	22-229	.005	600V.
C10	22-243	.01	400V.
C11	22-269	.00005	600V.
C12	22-324	2-35 MMFD. - 3 SECTION	
C13	22-345	.0011 MFD.	600V.
C14	22-358	.002 "	600V.
C15	22-205	200 - 550 MMFD. PADDER	
C16	22-368	.003 MFD.	600V.
C17	22-409	3 GANG VARIABLE	
C18	22-405	10 MFD.	50V.
C19	22-410	.003 MFD.	600V.
C20	22-411	.0023 "	600V.
C21	22-418	2-35 MMFD.	

DIAG Nº	PART Nº	DESCRIPTION	
C22	22-294	16 MFD.	450V.
C23	22445	8 MFD.	"
C24		4 MFD.	"
C25	22-433	.5 MFD.	400V.
C26	22-435	.02 "	600V.
C27	22-424	50-180 MMFD. PADDER	
C28	22-420	10 MFD.	25V.
C29	22-250	.05 MFD.	200V.
1	95-291	1ST I.F. TRANS. - 456 KC.	
2	95-292	2ND I.F. " "	
3	95-306	117V. -50-60 CYCLE TRANS.	
4	95-307	AUDIO TRANS.	
5	95-320	POWER CHOKE	
6	122-10	SHADOW METER	
7	20-120	R.F. PLATE CHOKE	
8	20-124	ANT. CHOKE - 2MH.	
9	5-3747	ANT. COIL ASSEM.	
10	5-3746	DET. COIL ASSEM.	
11	5-3745	OSC. COIL ASSEM.	
12	49-121	12" SPKR - MODEL 12 L 57	
13	49-124	12" "	MODEL
14	49-125	6 " 5800~ FIELD	12L58
15	85-82	BAND SELECTOR SW.	
16	95-310	25~ ALL VOLT. PWR TRANS.	
17	85-39	PHONO. SWITCH.	
18	44-7	PHONO. JACK	

NOTE
*2 SPKR. FIELD IS AUTOMATICALLY SUBSTITUTED FOR 5800~ SECTION OF CANDOHM RESISTOR WHEN SPKR. PLUG IS INSERTED IN SET.

I.F. FREQUENCY - 456 KC.
12 TUBE SUPERHETERODYNE
CHASSIS Nº 1202
MODELS 12L57 - 12L58
ZENITH RADIO CORP.

Models 12-S-205, 12-S-232, 12-S-245, 12-S- 265, 12-S-266, 12-S-267, 12-S-268 (1204 Chassis)



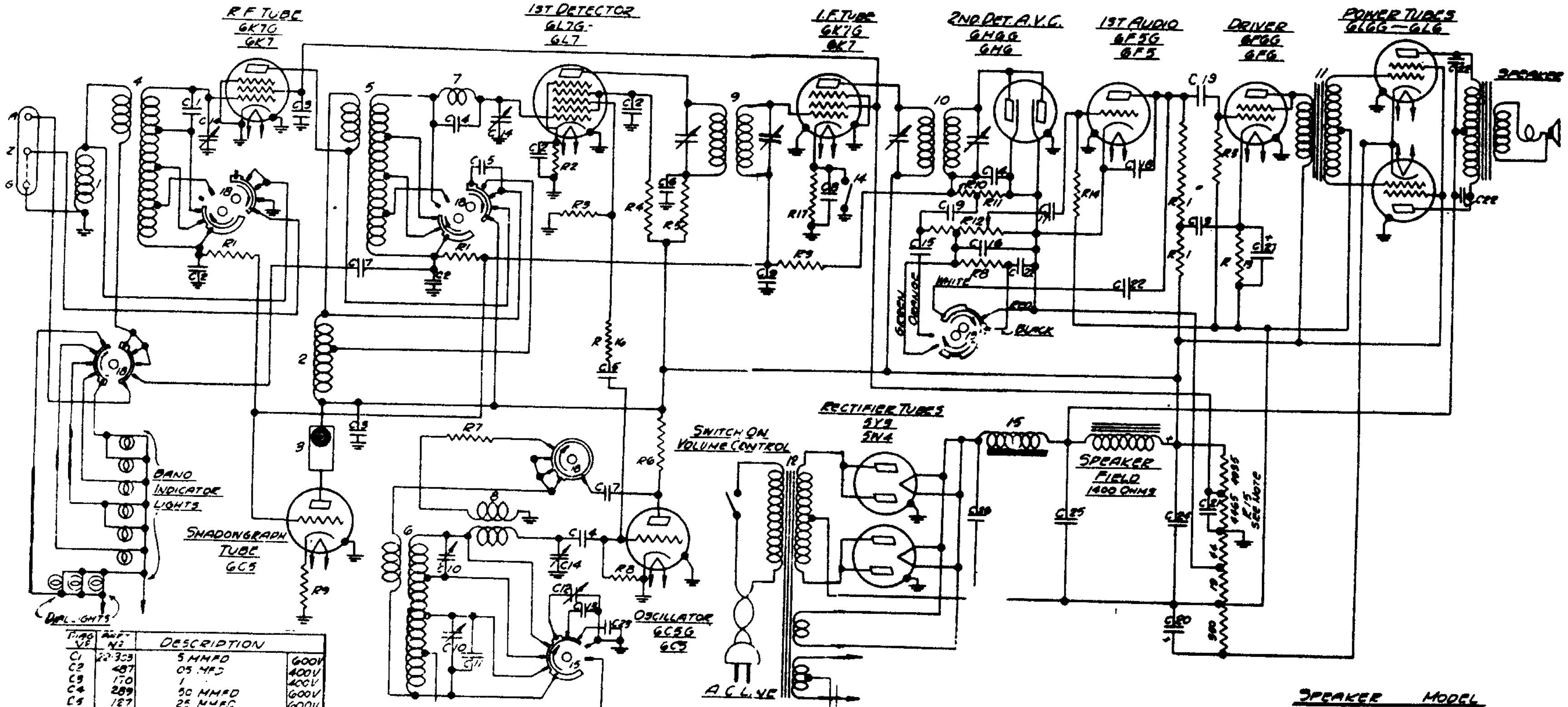
DIAG Nº	PART Nº	DESCRIPTION	
		VARIABLE TRIMMERS	
A		1ST I.F. TRANS. PRIMARY	
B		1ST I.F " SECONDARY	
C		2ND I.F " PRIMARY	
D		2ND I F. " SECONDARY	
F		BROADCAST OSCILLATOR	
G		DETECTOR BR'CAST (ON GANG)	
H		ANTENNA " (" ")	
J		22-519 BR'CAST PADDER	
K		SHORT WAVE OSCILLATOR (SEE NOTE)	
L		" " DETECTOR (" ")	
M		22-418 SHORT WAVE ANTENNA	
N		POLICE BAND OSCILLATOR (SEE NOTE)	
		NOTE:- TRIMMERS F, K, L & N MOUNTED ON BAKELITE STRIP PART # 22-549	
C1	22-548	5 GANG VARIABLE	
C2	487	.05 MFD.	400 V
C3	250	.05 MFD.	200 V
C4	127	25 MMFD.	600 V.
C5	558	DUAL FIXED PADDER	
C6	358	.002 MFD.	600 V.
C7	170	.1 MFD.	400 V.
C8	212	.05 MFD.	400 V
C9	162	.0001 MFD	600 V.
C10	527	.02 MFD.	200 V.
C11	182	.00025 MFD.	600 V.
C12	147	.0005 MFD.	600 V.
C13	561	.004 MFD.	400 V.
C14	196	.01 MFD.	600 V
C15	435	.02 MFD.	600 V.
C16	171	.05 MFD.	600 V.
C17	229	.005 MFD.	600 V.
C18	525	.005 MFD.	1000 V.
C19	572	10 MFD ELECTROLYTIC	25 V
C20		10 " "	25 V.
C21		10 " "	25 V

DIAG Nº	PART Nº	DESCRIPTION		
C24	22-575	4 MFD. ELECTROLYTIC		350V
C25		8 " "		200V
C26	566	12 MFD. "		450V
C27		20 " "		450V
C28	22-326	.003 MFD		400V
R1	63-555	47 M· OHM	¼ W. ± 20%	
R2	555	100 M "	¼ W ± 20%	
R3	609	22 M "	½ W ± 20%	
R4	581	470 "	¼ W. ± 20%	
R5	645	27 M "	¼ W ± 10%	
R6	586	3300 "	¼ W ± 20%	
R7	682	22 M "	2 W ± 20%	
R8	271	1 MEGOHM	¼ W ± 20%	
R9	605	1000 OHM	½ W ± 20%	
R10	596	330 M "	¼ W ± 20%	
R11	282	2200 "	¼ W ± 10%	
R12	260	100 M "	¼ W ± 10%	
R13	653	150 M "	¼ W ± 10%	
R14	439	2700 "	¼ W. ± 10%	
R15	639	6800 "	¼ W ± 10%	
R16	568	2 MEGOHM VOLUME CONTROL		

DIAG Nº	PART Nº	DESCRIPTION	
R17	63-680	10 M OHM	1 W ± 20%
R18	809	4 SECTION CANDOHM	
R19		1 MEGOHM · MOUNTED IN TUNING TUBE SOCKET	
R20	657	330 M OHM	¼ W ± 10%
1	5-5265	ANTENNA COIL & SHIELD ASSEM	
2	5-5266	DET COIL & SHIELD ASSEM	
3	5-5019	OSC COIL & SHIELD ASSEM	
4	95-416	1ST I.F TRANS.	
5	417	2ND I F. TRANS.	
6	85-103	BAND SELECTER SWITCH	
7	85-108	TONE CONTROL "	
8	85-109	SENSITIVITY "	
9	20-135	R F CHOKE	
10		SPEAKER TRANS.	
11	95-421	POWER TRANS 117 V 50-60 CYCLE	
12	95-455	" " ALL VOLTAGE 25 CYCLE	
13	85-120	MOTOR CONTROL SWITCH	
14	14-51	MOTOR	

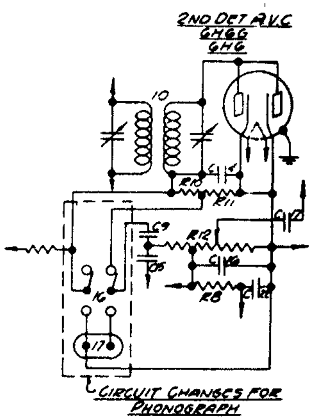
MODEL	SP'KR PART Nº	SIZE
12 S - 205	49 - 185	12
12 S - 232	49 - 183	8
12 S - 245	49 - 184	12
12 S - 265	49 - 185	12
12 S - 266	49 - 185	12
12 S - 267	49 185	12
12 S - 268	49 - 185	12

I.F. FREQUENCY 456 K.C.
12 TUBE SUPERHETERODYNE
3 BAND
CHASSIS NO. 1204
ZENITH RADIO CORP.



DIAG Nº	PART Nº	DESCRIPTION	
C1	22-303	5 MMFD	600V
C2	487	05 MFD	400V
C3	170	1 "	400V
C4	289	50 MMFD	600V
C5	127	25 MMFD	600V
C6	212	05 MFD	400V
C7	486	0012 "	600V
C8	249	01 "	400V
C9	250	05 "	200V
C10	508	TRIMMER COND	
C11	285	10 MMFD	600V
C12	205	200-550 MFD PADDER	
C13	384	0015 MFD	600V
C14	489	3 GANG VARIABLE	
C15	182	00025 MFD	600V
C16	147	0005 "	600V
C17	188	02 "	400V
C18	162	0001 "	600V
C19	455	02	600V
C20	509	10 MFD DRY ELEC COND	50V
C21	506	16 " WET " "	250V
C22	229	.005 MFD (TUBULAR)	600V
C23	485	005 "	600V
C24	125	8 MFD WET ELEC COND	450V
C25	294	16 " " " "	450V
C26	304	8 " " " (CHROM)	450V
C27	405	10 " DRY " COND	50V
R1	63-278	99 M OHM	¼W
R2	357	900 "	¼W
R3	295	990 M "	¼W
R4	208	12 M "	1W
R5	466	990 "	½W
R6	592	5100 "	1W
R7	590	5 "	¼W
R8	280	49 M "	¼W
R9	303	700 "	¼W

DIAG Nº	PART Nº	DESCRIPTION	
R10	63-300	100 M OHMS	¼W
R11	385	900 M "	¼W
R12	522	2 MEGOHM VOL CONT & SW.	
R13	531	650 OHM	1W
R14	523	2 MEGOHM	¼W
R15	528	CANDOHM	
R16	411	20 OHM	¼W
R17	201	9900 OHM	¼W
1	20-71	ANTENNA CHOKE	
2	20-135	R.F. PLATE "	
3	172-14	TUNING METER	
4	S4545	ANTENNA COIL ASSEM	
5	S4546	DETECTOR " "	
6	S4547	OSCILLATOR " "	
7	S4387	H F DETECTOR " "	
8	S-4388	H F OSCILLATOR " "	
9	95-368	1ST I.F. TRANS	
10	95-369	2ND I.F. "	
11	95-367	AUDIO "	
12	95-370	POWER " 115V 50-60 CYCLE	
	95-373	" " 25 CYCLE ALL VOLT	
13	85-92	TONE CONT SWITCH	
14	85-91	SENSITIVITY CONT SW	
15	95-366	POWER CHOKE	
16	85-89	PHONO SWITCH	
17	44-7	" JACK	
18	85-94	BAND SELECTOR SWITCH	



CIRCUIT CHANGES FOR PHONOGRAPH

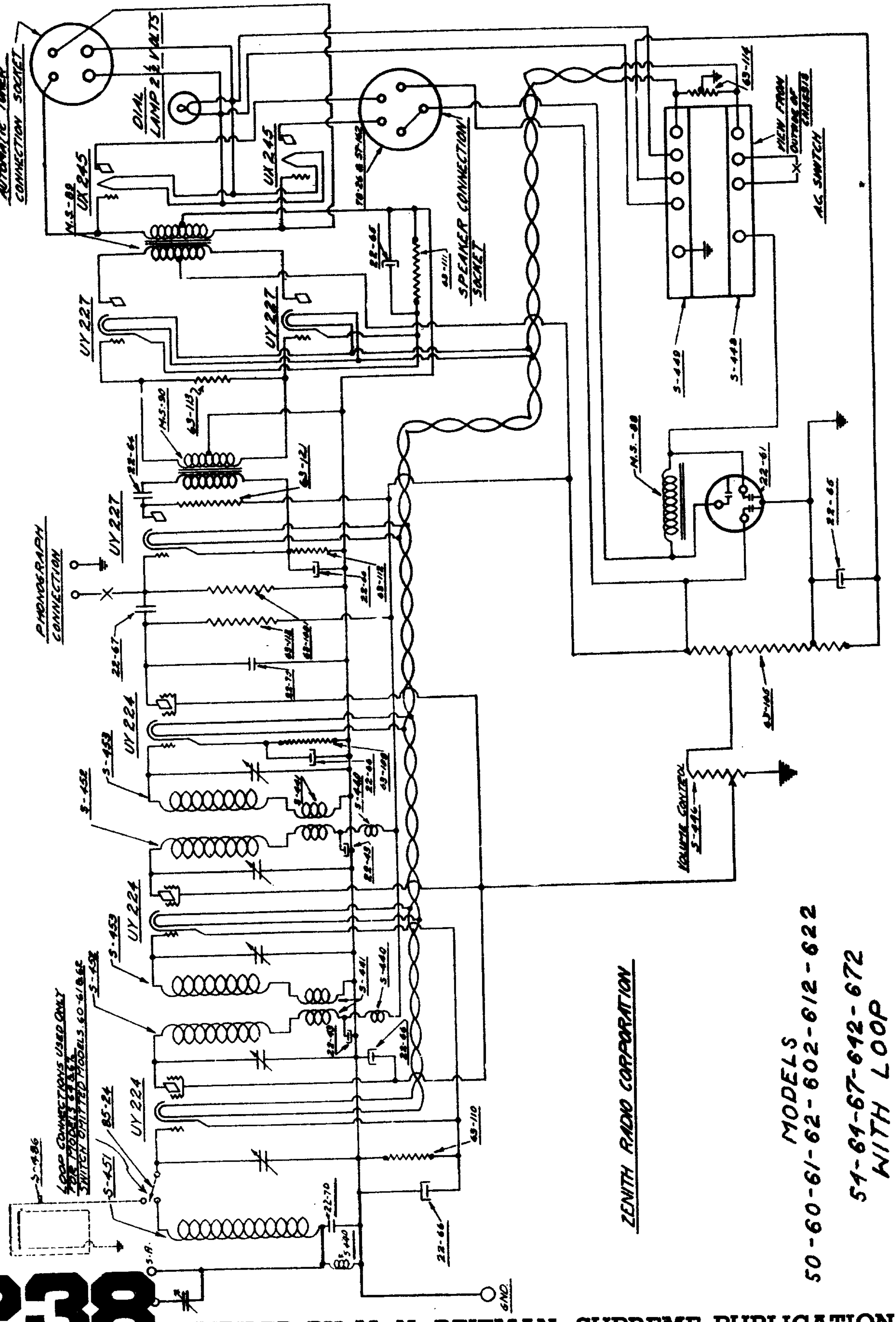
NOTE.—
#2 SPEAKER FIELD IS AUTOMATICALLY SUBSTITUTED FOR 4995 OHM SECTION OF CANDOHM RESISTOR WHEN SPEAKER PLUG 19 INSERTED IN SET

SPEAKER	MODEL
Nº1 49-149 12"	12-U-158
Nº1 49-150 12" Nº2 49-158 6"	12-U-159

I.F. FREQUENCY 456 KC
12 TUBE SUPERHETERODYNE —4 BAND
CHASSIS Nº 1203

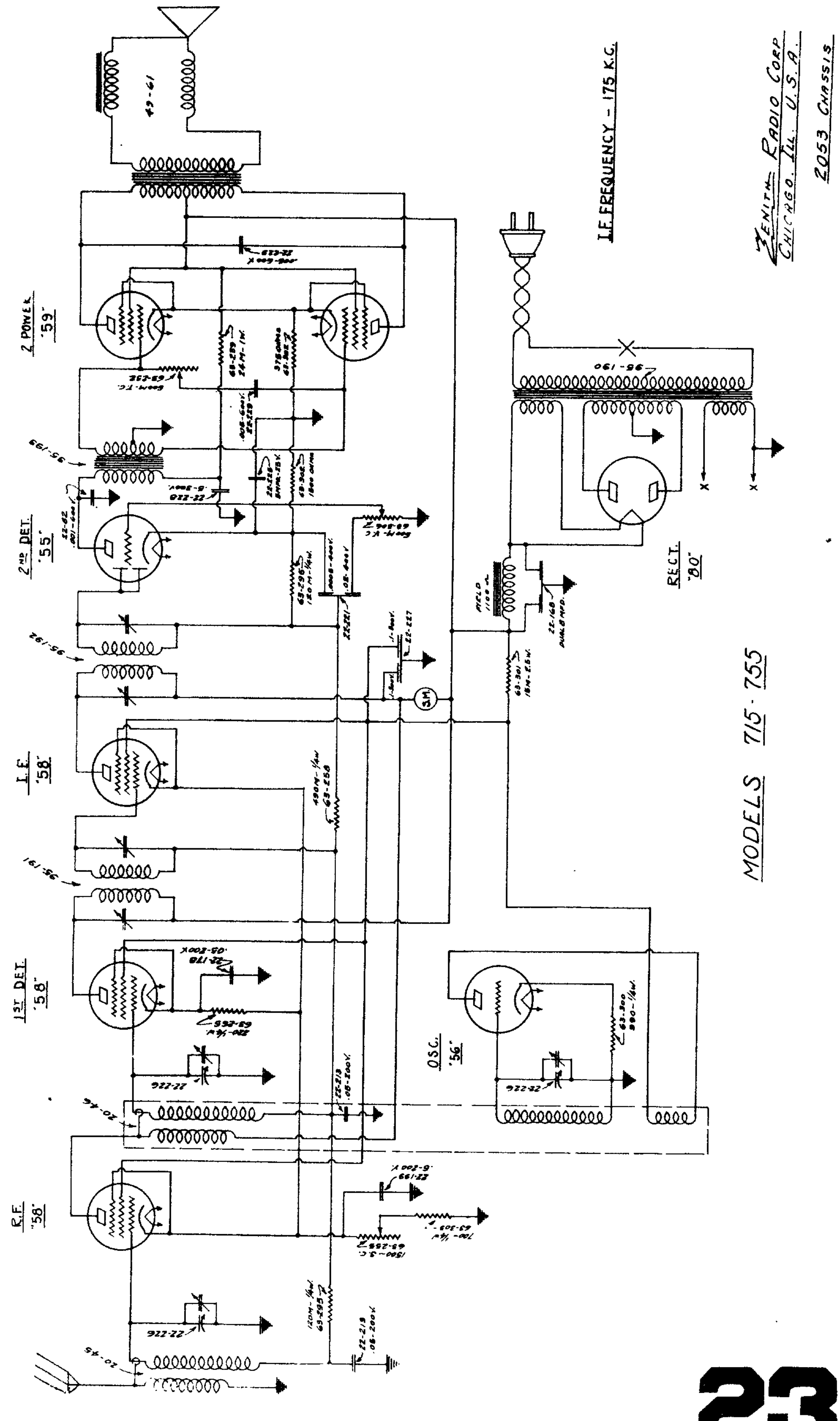
ZENITH RADIO CORP.

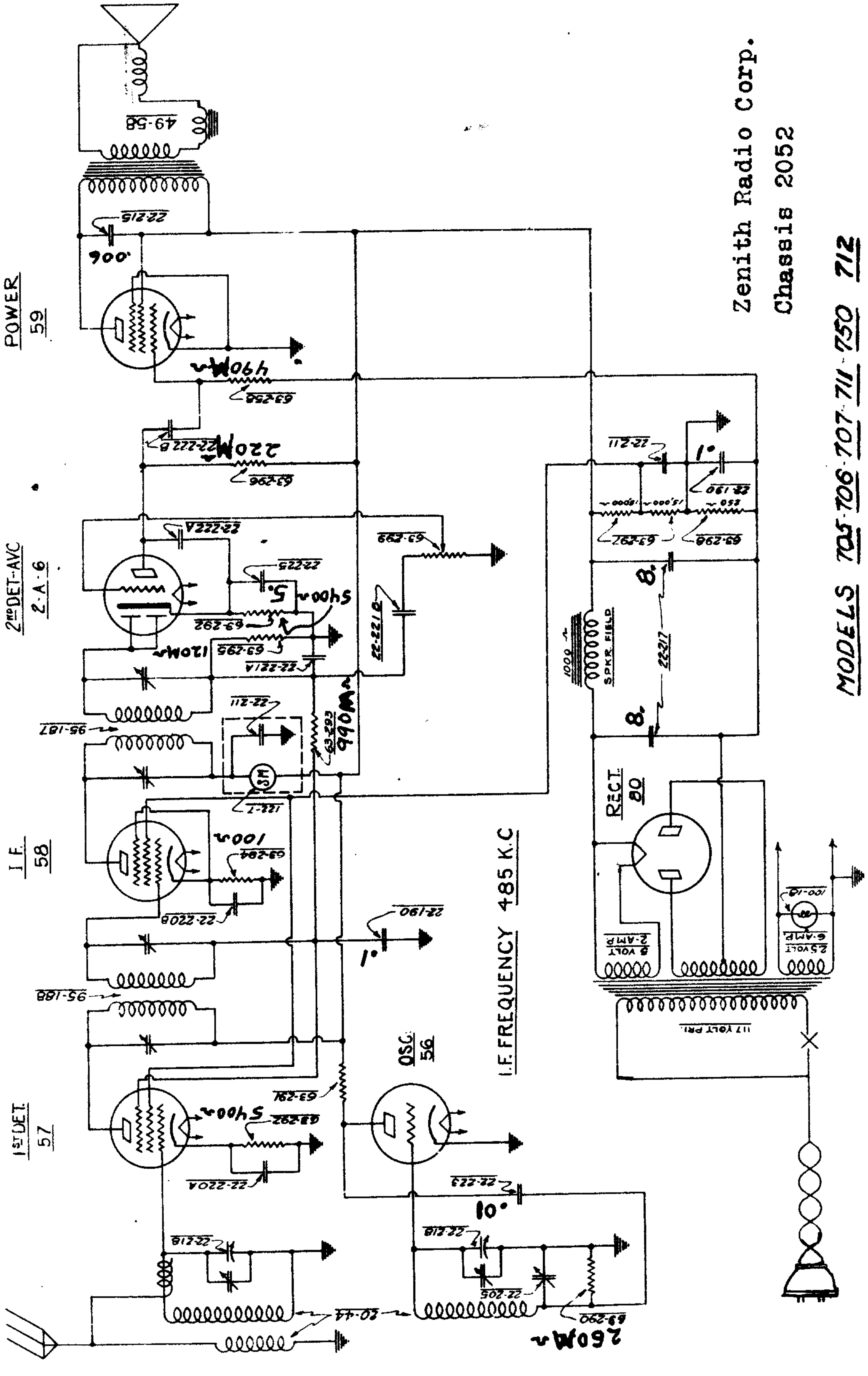
Models 12-U-158, 12-U-159. (Chassis No. 1203)



ZENITH RADIO CORPORATION

MODELS
50-60-61-62-602-612-622
54-64-67-642-672
WITH LOOP


ZENITH RADIO CORP
CHICAGO, ILL. U.S.A.
2053 CHASSIS
I.F. FREQUENCY - 175 K.C.
MODELS 715 · 755
2 POWER '59'
2ND DET. '55'
I.F. '58'
1ST DET. '58'
R.F. '58'
OSC. '56'
RECT. '80'
95-193
95-192
95-191
95-190
20-46
20-45
FIELD
SM
X
X



Zenith Radio Corp.
Chassis 2052

MODELS 705·706·707·711·750 712